R 8486-1F

THE NEW YORK ACADEMY OF MEDICINE

THE FUTURE OF INFORMATION SYSTEMS FOR THE MEDICAL SCIENCES

The New York Academy of Medicine
Fifth Avenue and 103rd Street
New York, New York

Study No. 861020

THE FUTURE OF INFORMATION SYSTEMS FOR THE MEDICAL SCIENCES

A Study Conducted for

The New York Academy of Medicine

Fieldwork: September 1986 - January 1987

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INTRODUCTION

The "information explosion" and what to do about it is increasingly an issue in the medical sciences. Even as electronic technology promises to make a vast array of information readily available to all members of the medical community, there will be hard choices in the years ahead as to how to manage that increasing mountain of material so it can be useful to the people who need it most. Ideas for solutions have been proposed; these range from the elimination of much of the printed materials now in costly storage to the imposition of selected criteria for online database systems.

The purpose of this study was to find out how different constituencies of that community receive and handle information today, what kinds of information and information media they believe are important to them, and, perhaps most importantly, what kinds of measures they'd accept to solve the information overload crisis and cut costs.

This study is based on interviews* with representative cross-sections of:

- 98 medical school faculty members in the basic sciences, drawn from the AAMC listing;
- 102 medical school faculty members in the clinical sciences, drawn from the AAMC listing;
- 99 medical students in their third and fourth years of education, drawn from Fisher-Stevens records;
- 104 medical residents, drawn from Fisher-Stevens records;
- 201 patient-care, office-based physicians, drawn from Fisher-Stevens records;
- 50 deans of medical schools, drawn from Barron's Guide to Medical and Dental Schools, Second Edition;

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*See Appendices A and B for details of selection, randomization, and characteristics of those survey methods used.

- o 50 chief librarians in medical school libraries, drawn from Barron's Guide to Medical and Dental Schools, Second Edition;
- o 50 chief librarians in affiliate hospital libraries, drawn from COTH Directory 1986 of Educational Programs and Services.

In addition, to have a look at these issues at a slightly different angle, the views of five of the twelve individuals who serve on the Liaison Committee on Medical Education accrediting committee were elicited. The responses of this group are included in the text, but not generally in the tabular material that follows.

Interviews were conducted from September 22, 1986 through January 8, 1987 by executive telephone interviewers from the Louis Harris and Associates central interviewing facility in New York City.

Percentages in the tables which follow may not always add up to 100%, due to rounding or the acceptance of multiple responses. In addition, there are some tables where "positive" and "negative" percentages appear directly above the base. These firms are the sum of either all those who answered "excellent" or "very good" (which yields the "positive" percentage) or the sum of those who answered "fair" or "poor" (the "negative" percentage).

We wish to thank The New York Academy of Medicine; The Rockefeller Foundation; The Josiah Macy, Jr. Foundation; and all the other foundations and corporations that sponsored this important piece of research. Their input was extremely helpful in the questionnaire design phase of the research.

We wish particularly to acknowledge Dr. Kenneth S. Warren, of The Rockefeller Foundation, for his instrumental role in bringing this project to life. We also wish to thank Mr. William Stubing and Dr. Campbell Moses of The New York Academy of Medicine, Dr. John T. Bruer, formerly with The Josiah Macy, Jr. Foundation, and Dr. James McCorkel, formerly of the Academy, for their valuable contributions to this research.

Louis Harris and Associates is also deeply indebted to all of the following funding sources, without whom this study would not have been possible: The McGraw Hill Book Company; the New England Journal of Medicine; BRS Saunders; University Microfilms International; The W. K. Kellogg Foundation; The Commonwealth Fund; The Josiah Macy, Jr. Foundation; The Rockefeller Foundation; and The Pew Memorial Trust of The Pew Charitable Trusts.

Louis Harris and Associates is responsible for final determination of the topics, question wordings, collection of the actual data, and analysis and interpretation in this report.

EXECUTIVE SUMMARY

1. The medical community today is aware that while the "information explosion" has had tremendously positive impact, it has created problems that must be dealt with. The "explosion" has made it very difficult for both scientists and clinicians to keep up with their fields, and it has created a lack of space and overcrowded shelves in medical libraries. The increasing cost of maintaining a library with acceptable standards is also considered a serious problem (Tables 3-1, 3-2, 3-3, and 3-5).

2. Among all user groups, deans, and chief librarians, there is overwhelming agreement that "the information explosion in the medical sciences has made computerized information systems technology an essential component in a university, medical school, or hospital" (Table 3-4). They similarly agree that with this technology, greater amounts of information are available in a much shorter time than was true years ago, and they feel that fast and reliable access to information may be essential for the difference between life and death (Table 2-42).

3. All spectra of the medical community agree that the "publish or perish" ethic needs reevaluation. From 88% of deans to 100% of affiliate hospitals' chief librarians think it's time to focus on quality instead of quantity in publications (Table 3-19).

4. The size of a library's collection should not be the main measure of its quality. Not only is size no longer an adequate or fair measure of quality, but at least eight in ten of all users and 98% of deans say the power of the library's access and retrieval technology is vital. Chief librarians are also nearly unanimous in their agreement (Tables 1-22, 1-23).

5. Medical school deans see the quality of the library and information retrieval facilities as being of only middling importance in determining the overall standing of a medical school. They place much greater emphasis on other factors such as the quality of the hospital with which the school is affiliated; and the academic credentials of the faculty. On the other hand, they feel that the medical school accrediting committee places much more importance on the quality and direction of the curriculum and the caliber of the school's students (Tables 1-1, 1-2, 1-6, 1-11, and 1-12).

6. Despite the exponential growth of information, the majorities of all user groups (basic science and clinical faculty, medical students, residents, and office-based physicians) feel that ALL materials of both potential scholarly interest and clinical relevance should be kept in medical school libraries, regardless of how often they are used. Deans and librarians were much less certain that this is appropriate (Tables 3-17, 3-18).

7. The only suggested measure to increase efficiency and cut costs that would be willingly accepted by a majority of any group is sharing of collections with other institutions (Tables 3-9, 3-12). Pluralities of every group would be very willing to limit the number of archival books available, but no more than a minority of any group would be willing to agree to having bound journals or periodicals available only in electronic form. The least popular idea is having a rule which would restrict access to the library's online computerized databases to professionals trained in efficient search strategies. At most, only 22% of clinical faculty and 21% of office-based physicians say they'd be very willing to go along with this (Table 3-16).

8. Regarding organizing databases in order to help offset the information overload, all groups are squeamish about selective input, but are somewhat more receptive to selective output. From 57% of office-based

physicians to 72% of both medical students and chief librarians at medical school libraries say that this is their most preferred option (Table 3-29).

9. When asked what criteria to use to rank articles as reliable sources of information as well as for deciding upon input and retrieval, the relevance of the article to a scientific inquiry or research problem is deemed most important. In general, the author's credentials and prior publication achievements are seen more as "somewhat", rather than "very" important (Tables 3-38, 3-39, 3-40, 3-41, and 3-42).

10. Medical school faculty have the greatest access to personal computers, though substantial majorities of other user groups also own or have access to a personal computer. However, about a third of all medical students, residents, and office-based physicians neither own nor have access to a personal computer (Table 2-34).

11. Access to online databases is almost universal in the medical community: 77% of basic scientists, 80% of clinical researchers, 78% of residents, 67% of medical students and 62% of office-based physicians have used these in the last 12 months (Table 2-39). However, of those users who have access to online computerized databases, 55% of medical students, 54% of office-based physicians, 46% of residents, 44% of basic science faculty, and 43% of clinical faculty rarely or never use the databases in the library to track down specific types of information (Table 2-46).

12. Medical professionals and students are still quite dependent upon the printed word as a reference source. Overwhelming majorities say their own printed sources are still the media most often used when they need to track down specific information (Tables 2-5, 2-9).

13. Overall, office-based physicians appear to be the least well informed of the members of the medical community. They annually read the fewest

number of books; over half of them who have access to a medical school library use a hospital library (which is less well stocked) instead; 26% of them don't have access to databases, and of those who do, 37% haven't used one in the past year (Tables 2-1, 2-4, 2-38, and 2-39).

CHAPTER 1: EVALUATING MEDICAL SCHOOLS AND THEIR LIBRARIES

Determining the Standing of a Medical School

Medical school deans see the quality of the library and information retrieval facilities as being of middling importance in determining the overall standing of a medical school, with 66% saying this is a very important factor. Out of a list of ten factors, deans see five as more important than the quality of the library: 38% of deans attach the highest level of importance to the quality of the hospitals with which the school is affiliated, 88% to the academic credentials of the faculty, 80% to the research experience of the faculty, 80% to the caliber of the students, and 74% to the quality of the research laboratories and equipment. Seen as less important are the number of scientific publications credited to the faculty (56%), the quality and direction of the curriculum (54%), the quality of the teaching laboratories and equipment (46%), and, coming in last, the rating given by the accrediting committee (28%) (Tables 1-1 through 1-10).

In the view of medical school deans, members of the accrediting committee have quite different priorities in determining the standing of a medical school. The quality and direction of the curriculum heads the list of factors which deans think accreditors see as very important, cited by 82% of deans. Students' caliber is seen as very important in the committee's eyes by 70% of deans; quality of hospitals with which the school is affiliated: 64%; library quality: 50%; quality of teaching laboratories and equipment: 50%; faculty academic credentials: 46%; quality of research laboratories and equipment: 30%; faculty research experience: 30%; and number of scientific publications credited to the faculty: 24% (Tables 1-11 through 1-19).

Observation:

Medical school deans believe the accreditors place a higher priority on curriculum than they themselves do, but a lower priority on the academic and research credentials of the faculty, the number of papers they rack up, and the laboratories they use to do their research. It is difficult to say whether deans think the accreditors' lack of emphasis on research and credentials is naive and mistaken, or whether they believe the accreditors are right in upholding the medical schools' educational charter as more important than the "publications game" and the wherewithal to play it. But the responses of the five members of the accrediting committee who participated in the survey suggest that the deans may have a good idea of where the committee's priorities are. If anything, deans think the accreditors put even less emphasis on the quality of the library than they themselves do (Summary Table "A").

For the five accrediting committee members we talked to, they place emphasis in the following order: the school's curriculum; student caliber; quality of affiliate hospitals; faculty's academic credentials; quality of teaching laboratory and equipment; quality of library; quality of research laboratory and equipment; faculty's research experience; and the number of scientific publications credited to the faculty (Summary Table "A").

Deans, Q.1a

SUMMARY TABLE "A"

"VERY IMPORTANT" FACTORS IN DETERMINING THE STANDING OF A MEDICAL SCHOOL

Base: 50	What Medical School Deans Think %	What Medical School Deans Think the Accreditors Think %
The quality of affiliate hospitals	88	64
The academic credentials of the faculty	88	46
The research experiences of the faculty	80	30
The caliber of the students	80	70
The quality of the research laboratories and equipment	74	30
The quality of the library and information retrieval facilities	66	50
The number of scientific publications credited to the faculty	56	24
The quality and direction of the curriculum	54	82
The quality of the teaching laboratories and equipment	46	50
The rating given by the accrediting committee	28	x

Ingredients of a Superior Medical School Library

When deans are asked to name the two or three things that they feel make for a superior medical school library, they cite a large collection of current books (52%) and periodicals (56%), and also rate the availability of online computerized databases (52%) as one of the top essentials (Table 1-20). And they think that the two or three things that accrediting committee members look for to determine a superior medical school library are those same three factors, but this time "ease of use of the library" is also most frequently mentioned (Table 1-21).

> Observation:
>
> The five accrediting committee members interviewed are not in agreement as to what makes a superior library. Only one out of the five mentions any of the factors named most often by the deans, such as a large collection of current books and periodicals and online systems. Professionalism of the library staff and large archival collections are perceived as equally important as the other factors. It would appear, all in all, that the accrediting committee isn't paying much attention to the library as an important component of a medical school (Table 1-20).

The Size of a Library's Collection Should Not Be the Main Measure of Its Quality

The overwhelming majority of all types of library users, deans of medical schools and hospitals, and chief librarians of both medical schools and affiliate hospitals feel that judging a university, medical school, or hospital library merely on its size is no longer an acceptable practice. Instead, 86% of basic science faculty, 94% of clinical faculty, 84% of medical students, 94% of residents, 91% of office-based physicians, and 98% of deans say the power of the library's data accessing and retrieval technology is also of prime importance. And chief librarians also agree. One hundred percent of medical school librarians and ninety-two percent of affiliate hospitals' librarians place access and retrieval right up with size, as do all five of the accrediting committee members we interviewed. Indeed, when asked to compare access to size, overwhelming majorities of all groups (basic science faculty: 90%, clinical faculty: 80%, medical students: 94%, residents: 91%, office-based physicians: 96%, deans: 96%, chief librarians of medical schools: 98%, and librarians of chief affiliate hospitals: 88%) agree access is a better measure than size (Tables 1-22 and 1-23). Four of the five accrediting members we spoke with agree strongly; one is not sure.

Rating Libraries' Collections

With the exception of audio-visual materials and computer-assisted instruction programs, all groups of users*, deans, and chief librarians are quite well satisfied with what their libraries have to offer.

Strong majorities of all user groups rate the libraries to which they have access either excellent or very good on having up-to-date, comprehensive, and easy-to-use book collections (Tables 1-24 through 1-26). Basic science faculty are less likely than others to rate the book collection "excellent" on being up-to-date and comprehensive, while clinical faculty stand out by being more likely than others to give the highest marks to their library for being easy-to-use. Deans are less generous than most user groups in the excellent ratings they give their libraries' book collections on being up-to-date and comprehensive, although they give the book collections high marks on being easy-to-use. Chief librarians at medical schools and affiliate hospitals rate their book collections just about as users do on being up-to-date, but medical school librarians give their book collections fewer excellent ratings than most users do on being comprehensive, and the figure for affiliate hospital librarians is smaller still. Slightly over half of affiliate hospital librarians rate their book collections excellent on being easy-to-use.

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*Among office-based physicians. the question was asked only of those who report they have access to a medical library.

Even stronger majorities give their libraries' collections of journals overall positive rating on being up-to-date, comprehensive, and easy-to-use (Tables 1-27 through 1-29). In fact, majorities in all user groups except office-based physicians rate the journal collection excellent on being up-to-date, as do majorities of medical school deans and chief librarians. An overwhelming four-out-of-five majority of affiliate hospital librarians give their journal collection excellent marks on being up-to-date. Majorities of clinical faculty and medical students rate their libraries' journal collections excellent on being comprehensive; lower proportions of the other user groups and of chief librarians give excellent marks here, with deans of medical schools being the most reserved in their ratings. Clinical faculty stand out among users as offering the highest excellent ratings of their libraries' journal collections on being easy-to-use; affiliate hospital librarians are much more upbeat than their opposite numbers in medical schools on this score. But, conversely, overwhelming majorities are not satisfied with the currency, comprehensiveness, and ease-of-use of their libraries' audiovisual materials and computer-assisted instruction programs.

As many as half of the medical school faculty and roughly one-quarter of residents and office-based physicians with access to a library don't know how to rate their libraries' collection of audiovisual materials (Tables 1-30 through 1-32). Indeed, from 12% to 14% of chief librarians say their libraries don't collect such materials. To the extent that they can give an answer, faculty members, medical students, and office-based physicians split about evenly on whether theses collections are up-to-date, as do chief librarians at medical schools and affiliate hospitals. Deans tend to rate their libraries positively on this; residents tend to give negative ratings. There is a consensus among all groups, including deans and librarians, that collections of audiovisual materials aren't very comprehensive. However, the majorities of all groups except residents rate their libraries' audiovisual materials positively on being easy-to-use.

Again, definite majorities of basic science and clinical faculty, and pluralities of residents and office-based physicians, don't know enough about computer-assisted instruction programs to evaluate them (Tables 1-33 through 1-35). Although 28% of chief librarians at medical schools and as many as 60% of chief librarians at affiliate hospitals report they don't have computer-assisted instruction programs in their libraries, deans of medical schools are positive (52%) about the computer-assisted instruction programs at their institutions' libraries being up-to-date. Deans and chief librarians in medical schools think the libraries' computer-assisted instruction programs are easy-to-use, while those affiliate office-based physicians are undecided. On comprehensiveness, deans and chief librarians give negative marks; medical students and office-based physicians tend to do the same. To the extent they know anything about the computer-assisted instruction programs in their library, faculty seem to tilt toward a positive evaluation and residents are both positive and negative on comprehensiveness. Deans and chief librarians in medical schools think the libraries' computer-assisted instruction programs are easy-to-use, while those affiliate hospital librarians who report they have such collections are divided on how easy it is to use them. Clinical faculty and medical students have a positive view of these materials being easy to use, but basic science faculty and residents don't come down strongly one way or the other, and office-based physicians lean to the negative.

Users give their libraries generally good marks on the availability of information via online computerized databases (Table 1-36). The highest positive ratings come from basic science and clinical medical school faculty (42% of the latter give excellent ratings). Only half of office-based physicians who have access to a medical library give positive marks to the availability of online information; as many as one-quarter of this group are not sure what rating they would give.

Rating the Library Staff

Library staff get high grades from everyone when it comes to their competence. Not surprisingly, chief librarians are amongst the most laudatory (100% of medical school chief librarians and 94% of affiliate hospitals' chief librarians say their staff is either "excellent" or "pretty good"). But deans (94%), basic science faculty (94%), and clinical faculty (93%) are also highly pleased with the competence of the library staff; residents (83%), office-based physicians (80%), and medical students (75%) are noticeably less so (Table 1-37).

Their research and online database search skills, however, receive less praise. Whereas chief librarians of both medical schools (90%) and affiliate hospitals (92%) rate their staff's research skills as either excellent or very good, only 68% of basic science faculty, 75% of clinical faculty, 72% of medical students, 71% of residents, 71% of office-based physicians, and 78% of deans feel that way (Table 1-38). There are even more noticeable differences in the perceptions of the online database search skills of the library staff. Fully one hundred percent of medical schools' chief librarians and ninety-four percent of affiliate hospitals' chief librarians rate their staff's skills in that area as excellent or very good. Out of all the user groups and deans,

deans' feelings are closest to the chief librarians': 86% of deans rate the library staff's online database search skills as positive. But users -- especially office-based physicians and medical students -- are more reserved in their assessments. Three out of four basic science (78%) and clinical (77%) faculty rate the skills as positive. Seven out of ten residents (69%) also give positive ratings, but a full 15% say the skills are either only fair or poor. Sixty-four percent of medical students are sanguine about the staff's skills; 16% are not satisfied. And only 62% of office-based physicians give positive ratings, while 15% give negative ones (Table 1-39).

> Observation:
>
> Chief librarians of both medical schools and affiliate hospitals are generally more positive in their rating of their staff than are users and deans. This finding could indicate several things: one is that, while there is an information explosion, the key people responsible in helping doctors, students, and faculty make the most of the information available to them are either not aware of the users' needs, not able to meet them, or both. It could also be reflective of users' incompetence in both knowing and asking for what they need. And it could also indicate that chief librarians are more appreciative than library users of the skill and effort it takes to retrieve appropriate and accurate information from what is, indeed, a formidable array of sources.

Q. 1a

Table 1-1

Q.: In your view, how important a factor is.... the quality of the hospitals with which the school is affiliated in determining the overall standing of a medical school?

	Deans %
Very important	88
Somewhat important	12
Not very important	-
Not at all important	-
Not sure	-
Base	50

Q.1a

Table 1-2

Q.: In your view, how important a factor is.... the academic credentials of the faculty in determining the overall standing of a medical school?

	Deans %
Very important	88
Somewhat important	8
Not very important	2
Not at all important	-
Not sure	2
Base	50

Q.1a

Table 1-3

Q.: In your view, how important a factor is.... the research experience of the faculty in determining the overall standing of a medical school?

	Deans %
Very important	80
Somewhat important	20
Not very important	-
Not at all important	-
Not sure	-
Base	50

Q.1a

Table 1-4

Q.: In your view, how important a factor is.... the caliber of the students in determining the overall standing of a medical school?

	Deans %
Very important	80
Somewhat important	16
Not very important	4
Not at all important	-
Not sure	-
Base	50

Q.1a

Table 1-5

Q.: In your view, how important a factor is.... the quality of the research laboratories and equipment in determining the overall standing of a medical school?

	Deans %
Very important	74
Somewhat important	24
Not very important	-
Not at all important	-
Not sure	2
Base	50

Q.1a

Table 1-6

Q.: In your view, how important a factor is...: the quality of the library and information retrieval facilities in determining the overall standing of a medical school?

	Deans %
Very important	66
Somewhat important	32
Not very important	2
Not at all important	-
Not sure	-
Base	50

Q.1a

Table 1-7

Q.: In your view, how important a factor is.... the number of scientific publications credited to the faculty in determining the overall standing of a medical school?

	Deans %
Very important	56
Somewhat important	40
Not very important	2
Not at all important	-
Not sure	2
Base	50

Q.1a

Table 1-8

Q.: In your view, how important a factor is.... the quality and direction of the curriculum in determining the overall standing of a medical school?

	Deans %
Very important	54
Somewhat important	36
Not very important	10
Not at all important	-
Not sure	-
Base	50

Q.1a

Table 1-9

Q.: In your view, how important a factor is.... the quality of the teaching laboratories and equipment in determining the overall standing of a medical school?

	Deans %
Very important	46
Somewhat important	46
Not very important	8
Not at all important	-
Not sure	-
Base	50

Q.1a

Table 1-10

Q.: In your view, how important a factor is.... the rating given by the Accrediting Committee in determining the overall standing of a medical school?

	Deans %
Very important	28
Somewhat important	44
Not very important	18
Not at all important	6
Not sure	4
Base	50

Q.1c

Table 1-11

Q.: Thinking about how members of the Accrediting Committee evaluate medical schools, how important a factor do you suppose.... the quality and direction of **the curriculum is to them?**

	Deans %
Very important	82
Somewhat important	12
Not very important	4
Not at all important	-
Not sure	2
Base	50

Q. 1c

Table 1-12

Q.: Thinking about how members of the Accrediting Committee evaluate medical schools, how important a factor do you suppose.... the caliber of the students **is to them?**

	Deans %
Very important	70
Somewhat important	28
Not very important	-
Not at all important	-
Not sure	2
Base	50

Q. 1c

Table 1-13

Q.: Thinking about how members of the Accrediting Committee evaluate medical schools, how important a factor do you suppose.... the quality of the hospitals **with which the school is affiliated is to them?**

	Deans %
Very important	64
Somewhat important	30
Not very important	4
Not at all important	-
Not sure	2
Base	50

Q.1c

Table 1-14

Q.: Thinking about how members of the Accrediting Committee evaluate medical schools, how important a factor do you suppose.... the quality of the library and information retrieval facilities is to them?

	Deans %
Very important	50
Somewhat important	46
Not very important	2
Not at all important	-
Not sure	2
Base	50

Q.1c

Table 1-15

Q.: Thinking about how members of the Accrediting Committee evaluate medical schools, how important a factor do you suppose.... the quality of the teaching laboratories and equipment is to them?

	Deans %
Very important	50
Somewhat important	40
Not very important	8
Not at all important	-
Not sure	2
Base	50

Q.1c

Table 1-16

Q.: Thinking about how members of the Accrediting Committee evaluate medical schools, how important a factor do you suppose.... the academic credentials of the faculty is to them?

	Deans %
Very important	46
Somewhat important	44
Not very important	4
Not at all important	-
Not sure	6
Base	50

Q. 1c

Table 1-17

Q.: Thinking about how members of the Accrediting Committee evaluate medical schools, how important a factor do you suppose.... the quality of the research **laboratories and equipment is to them?**

	Deans %
Very important	30
Somewhat important	66
Not very important	2
Not at all important	-
Not sure	2
Base	50

Q. 1c

Table 1-18

Q.: Thinking about how members of the Accrediting Committee evaluate medical schools, how important a factor do you suppose.... the research experience of the faculty is to them?

	Deans %
Very important	30
Somewhat important	60
Not very important	6
Not at all important	-
Not sure	4
Base	50

Q.1c

Table 1-19

Q.: Thinking about how members of the Accrediting Committee evaluate medical schools, how important a factor do you suppose.... the number of scientific **publications credited to the faculty is to them?**

	Deans %
Very important	24
Somewhat important	60
Not very important	10
Not at all important	2
Not sure	4
Base	50

Q.1b

Table 1-20

Q.: What, in your opinion, are the two or three things that make for a superior medical school library?

	Deans %
Large collection of current books	52
Large collection of current periodicals	56
Large archives of old books/periodicals	12
Availability of online computerized databases	52
Professionalism of the library staff	20
Research skills of the library staff	10
Computerized database search skills of library staff	16
Ease of use of the library	28
Access to materials/availability of material	20
Communication between libraries	6
Facilities/enough space	6
Accessible hours	4
Other	28
Not sure	-
Base	50

Q.1d

Table 1-21

Q.: What, in your opinion, are the two or three things that Accrediting Committee members look for to determine that a medical school library is superior?

	Deans %
Large collection of current books	58
Large collection of current periodicals	58
Large archives of old books/periodicals	14
Availability of online computerized databases	34
Professionalism of the library staff	20
Research skills of the library staff	8
Computerized database search skills of library staff	10
Ease of use of the library	36
Access to materials/availability of material	12
Communication between libraries	4
Facilities/enough space	12
Accessible hours	6
Other	30
Not sure	6
Base	50

Q.1f

Table 1-22

Q.: There has been much discussion recently about the so-called "information explosion," the impact it may be having on many fields today -- especially the medical sciences -- and how the challenges it poses might be faced. Do you agree or disagree with the following statement?.... Universities, medical schools, and hospitals should no longer be judged solely on the number of books and periodicals in their library collections but also on the power of their data accessing and retrieval technology.

	Users							
	Teaching/ Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Agree strongly	50	53	41	47	51	68	82	74
Agree somewhat	36	41	43	47	40	30	18	18
Disagree somewhat	8	3	14	4	5	-	-	2
Disagree strongly	2	2	1	1	2	-	-	6
Not sure	4	1	-	1	2	2	-	-
Base	98	102	99	104	201	50	50	50

Q.1L

Table 1-23

Q.: There has been much discussion recently about the so-called "information explosion," the impact it may be having on many fields today -- especially the medical sciences -- and how the challenges it poses might be faced. Do you agree or disagree with the following statement?.... A medical school library should be judged on its ability to provide users with easy access to the most relevant information rather than on the size of its collection.

	Users						Chief Librarians	
	Teaching/ Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Agree strongly	54	46	59	59	64	68	72	64
Agree somewhat	36	34	35	32	32	28	26	24
Disagree somewhat	8	16	5	7	3	4	-	6
Disagree strongly	-	1	-	1	1	-	-	2
Not sure	2	3	1	2	-	-	2	4
Base	98	102	99	104	201	50	50	50

Q.6b

Table 1-24

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... collection of books on being up-to-date?

	Users							
	Teaching/ Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	33	45	42	40	41	32	38	38
Very good	41	36	41	39	30	40	46	42
Fair	23	14	13	13	21	28	16	16
Poor	1	3	3	4	5	-	-	4
My libraries don't collect them	-	-	-	-	-	-	-	-
Not sure	2	2	-	3	3	-	-	-
-------Positive*	73	81	84	80	71	72	84	80
-------Negative*	24	17	16	17	26	28	16	20
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

Table 1-25

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... collection of books on being comprehensive?

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	24	44	43	40	35	24	26	18
Very good	48	36	42	39	39	46	48	58
Fair	21	16	14	13	21	28	24	16
Poor	3	2	-	5	2	2	2	4
My libraries don't collect them	-	-	-	-	-	-	-	-
Not sure	3	2	-	3	3	-	-	4
-------Positive*	72	80	86	80	74	70	74	76
-------Negative*	24	18	14	17	23	30	26	20
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

Table 1-26

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... collection of books on being easy-to-use?

	Users							
	Teaching/ Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	34	47	39	34	31	42	38	54
Very good	54	38	43	45	48	44	50	40
Fair	8	12	14	17	16	10	10	2
Poor	2	1	2	1	2	-	-	-
My libraries don't collect them	-	-	-	-	-	-	-	-
Not sure	2	2	1	3	3	4	2	4
-------Positive*	88	85	83	79	79	86	88	94
-------Negative*	10	13	16	18	18	10	10	2
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

Table 1-27

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... collection of journals on being up-to-date?

	Users							
	Teaching/ Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	52	61	66	57	48	56	58	80
Very good	40	31	26	33	40	28	38	16
Fair	7	6	8	8	7	12	4	4
Poor	-	1	-	1	3	2	-	-
My libraries don't collect them	-	-	-	-	-	-	-	-
Not sure	1	1	-	2	2	2	-	-
-------Positive*	92	92	92	89	88	84	96	96
-------Negative*	7	7	8	9	10	14	4	4
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

Table 1-28

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... collection of journals on being comprehensive?

	Users						Chief Librarians	
	Teaching/ Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	39	52	54	43	42	30	40	44
Very good	44	38	30	41	39	42	48	42
Fair	14	8	16	13	14	22	12	12
Poor	1	1	-	1	2	4	-	-
My libraries don't collect them	-	-	-	-	-	-	-	-
Not sure	2	1	-	2	3	2	-	2
-------Positive*	83	90	84	85	81	72	88	86
-------Negative*	15	9	16	13	16	26	12	12
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

Table 1-29

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... collection of journals on being easy-to-use?

	Users							
	Teaching/ Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	45	57	38	32	39	44	44	60
Very good	44	34	49	53	46	42	42	36
Fair	7	7	11	13	10	12	12	2
Poor	1	-	-	-	2	-	-	-
My libraries don't collect them	-	-	-	-	-	-	-	-
Not sure	3	2	1	3	4	2	2	2
-------Positive*	89	91	88	85	85	86	86	96
-------Negative*	8	7	11	13	12	12	12	2
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

Table 1-30

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... collection of audiovisual materials on being up-to-date?

	Users							
	Teaching/ Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	6	9	16	5	16	22	24	20
Very good	14	13	27	22	22	32	22	22
Fair	21	18	33	38	26	30	28	34
Poor	4	5	8	6	11	4	12	10
My libraries don't collect them	4	3	1	4	3	2	14	14
Not sure	50	53	14	25	23	10	-	-
-------Positive*	20	22	43	27	38	54	46	42
-------Negative*	26	23	41	44	37	34	40	44
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

Table 1-31

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... collection of audiovisual materials on being comprehensive?

	Users							
	Teaching/ Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	4	7	11	4	14	18	18	6
Very good	12	12	26	22	22	22	20	16
Fair	23	17	39	35	29	42	32	40
Poor	6	9	9	9	11	6	18	20
My libraries don't collect them	4	3	1	4	3	2	12	16
Not sure	50	53	13	27	22	10	-	2
-------Positive*	16	19	37	26	36	40	38	22
-------Negative*	30	25	48	43	40	48	50	60
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

Table 1-32

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... collection of audiovisual materials on being easy-to-use?

	Users							
	Teaching/ Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	8	7	24	4	16	34	30	16
Very good	21	18	30	26	31	26	24	38
Fair	16	13	22	30	19	30	22	20
Poor	1	7	6	10	8	2	10	12
My libraries don't collect them	4	3	2	4	3	2	12	14
Not sure	49	53	15	27	22	6	2	-
-------Positive*	30	25	55	30	47	60	54	54
-------Negative*	17	20	28	39	28	32	32	32
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

Table 1-33

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... collection of computer-assisted instruction programs on being up-to-date?

	Users						Chief Librarians	
	Teaching/ Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	6	7	10	5	7	32	16	6
Very good	17	14	25	21	17	36	18	12
Fair	8	10	34	19	17	14	28	8
Poor	9	3	9	10	12	10	8	12
My libraries don't collect them	2	8	3	10	8	4	28	60
Not sure	57	59	18	36	38	4	2	2
-------Positive*	23	21	35	26	24	68	34	18
-------Negative*	17	13	43	29	29	24	36	20
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

Table 1-34

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... collection of computer-assisted instruction programs on being comprehensive?

	Users							
	Teaching/ Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	3	8	5	6	5	20	8	4
Very good	18	13	26	19	16	18	16	2
Fair	9	5	29	18	16	40	22	14
Poor	8	4	16	7	13	12	24	14
My libraries don't collect them	2	8	3	10	8	4	28	62
Not sure	59	63	20	40	42	6	2	4
-------Positive*	21	21	31	25	21	38	24	6
-------Negative*	17	9	45	25	28	52	46	28
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

Table 1-35

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... collection of computer-assisted instruction programs on being easy-to-use?

	Users							
	Teaching/ Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	7	7	17	5	5	24	24	12
Very good	14	16	27	22	16	40	16	8
Fair	12	8	24	17	16	24	18	4
Poor	7	1	10	7	12	2	10	12
My libraries don't collect them	2	8	3	11	8	4	28	62
Not sure	57	61	18	38	43	6	4	2
-------Positive*	21	23	44	27	21	64	40	20
-------Negative*	19	9	34	24	28	26	28	16
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

Table 1-36

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... availability at the library of information via online computerized database?

	Users						Chief Librarians	
	Teaching/ Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	20	42	29	16	19	44	70	76
Very good	52	35	32	47	31	40	20	20
Fair	13	7	15	17	14	8	6	2
Poor	1	1	7	5	7	6	-	-
My libraries don't collect them	-	-	3	1	4	-	4	2
Not sure	13	15	13	13	25	2	-	-
-------Positive*	72	77	62	63	50	84	90	96
-------Negative*	14	8	22	22	21	14	6	2
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

Table 1-37

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... competence of the library staff?

	Users						Chief Librarians	
	Teaching/ Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	40	48	33	34	33	56	68	84
Very good	54	45	42	49	47	38	32	10
Fair	4	3	20	12	14	6	-	6
Poor	-	-	3	3	2	-	-	-
My libraries don't collect them	-	-	-	-	2	-	-	-
Not sure	2	4	1	3	3	-	-	-
-------Positive*	94	93	76	83	80	94	100	94
-------Negative*	4	3	23	14	16	6	-	6
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

Table 1-38

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... research skills of the library staff?

	Users							
	Teaching/ Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	28	36	26	28	25	34	52	72
Very good	40	39	46	43	46	44	38	20
Fair	14	15	21	21	14	14	6	6
Poor	-	-	-	2	4	-	2	-
My libraries don't collect them	-	-	-	-	2	-	-	2
Not sure	18	10	6	6	10	8	2	-
-------Positive*	67	75	73	71	70	78	90	92
-------Negative*	14	15	21	23	18	14	8	6
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

Table 1-39

Base: Users - have access to a medical library

Q.: I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the.... online database search skills of the library staff?

	Users						Chief Librarians	
	Teaching/ Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Excellent	27	35	27	27	24	46	70	82
Very good	51	42	37	42	38	40	30	12
Fair	6	7	13	13	12	10	-	6
Poor	-	1	3	2	3	-	-	-
My libraries don't collect them	-	-	3	2	6	-	-	-
Not sure	16	15	16	13	18	4	-	-
-------Positive*	78	77	65	69	62	86	100	94
-------Negative*	6	8	16	15	14	10	-	6
Base	98	102	99	104	191	50	50	50

---

*Positive = "Excellent" and "very good."
Negative = "Fair" and "poor."

Q.6b

SUMMARY TABLE "1-A"
BASIC SCIENCE FACULTY RATE THEIR INFORMATION FACILITIES

Base: Basic science teaching/research scientists
who have access to a medical library

Base: 98	Positive %	Negative %	Not Sure %
1. Collection of books on being up-to-date	73	24	3
2. Collection of books on being comprehensive	72	24	3
3. Collection of books on being easy-to-use	88	10	2
4. Collection of journals on being up-to-date	92	7	1
5. Collection of journals on being comprehensive	83	15	2
6. Collection of journals on being easy-to-use	89	8	3
7. Collection of audiovisual materials on being up-to-date	20	26	50
8. Collection of audiovisual materials on being comprehensive	16	30	50
9. Collection of audiovisual materials on being easy-to-use	30	17	49
10. Collection of computer-assisted instruction programs on being up-to-date	23	17	57
11. Collection of computer-assisted instruction programs on being comprehensive	21	17	59
12. Collection of computer assisted instruction programs on being easy-to-use	21	19	57
13. Availability at the library of information via online computerized database	72	14	13
14. Competence of the library staff	94	4	2
15. Research skills of the library staff	67	14	18
16. Online database search skills of the library staff	78	6	16

Q.6b

SUMMARY TABLE "1-B"
CLINICAL FACULTY RATE THEIR INFORMATION FACILITIES

Base: Clinical teaching/research scientists
who have access to a medical library

Base: 102	Positive %	Negative %	Not Sure %
1. Collection of books on being up-to-date	81	17	2
2. Collection of books on being comprehensive	80	18	2
3. Collection of books on being easy-to-use	85	13	2
4. Collection of journals on being up-to-date	92	7	1
5. Collection of journals on being comprehensive	90	9	1
6. Collection of journals on being easy-to-use	91	7	2
7. Collection of audiovisual materials on being up-to-date	22	23	53
8. Collection of audiovisual materials on being comprehensive	19	25	53
9. Collection of audiovisual materials on being easy-to-use	25	20	53
10. Collection of computer-assisted instruction programs on being up-to-date	21	13	59
11. Collection of computer-assisted instruction programs on being comprehensive	21	9	63
12. Collection of computer assisted instruction programs on being easy-to-use	23	9	61
13. Availability at the library of information via online computerized database	77	8	15
14. Competence of the library staff	93	3	4
15. Research skills of the library staff	75	15	10
16. Online database search skills of the library staff	77	8	15

Q.6b

SUMMARY TABLE "1-C"
MEDICAL STUDENTS RATE THEIR INFORMATION FACILITIES

Base: Medical students who have access to a medical library

Base: 102	Positive %	Negative %	Not Sure %
1. Collection of books on being up-to-date	84	16	-
2. Collection of books on being comprehensive	86	14	-
3. Collection of books on being easy-to-use	83	16	1
4. Collection of journals on being up-to-date	92	8	-
5. Collection of journals on being comprehensive	84	16	-
6. Collection of journals on being easy-to-use	88	11	1
7. Collection of audiovisual materials on being up-to-date	43	41	14
8. Collection of audiovisual materials on being comprehensive	37	48	13
9. Collection of audiovisual materials on being easy-to-use	55	28	15
10. Collection of computer-assisted instruction programs on being up-to-date	35	43	18
11. Collection of computer-assisted instruction programs on being comprehensive	31	45	20
12. Collection of computer assisted instruction programs on being easy-to-use	44	34	18
13. Availability at the library of information via online computerized database	62	22	13
14. Competence of the library staff	76	23	1
15. Research skills of the library staff	73	21	6
16. Online database search skills of the library staff	65	16	16

Q.6b

SUMMARY TABLE "1-D" RESIDENTS RATE THEIR INFORMATION FACILITIES

Base: Residents who have access to
a medical library

Base: 104	Positive %	Negative %	Not Sure %
1. Collection of books on being up-to-date	80	17	3
2. Collection of books on being comprehensive	80	17	3
3. Collection of books on being easy-to-use	79	18	3
4. Collection of journals on being up-to-date	89	9	2
5. Collection of journals on being comprehensive	85	13	2
6. Collection of journals on being easy-to-use	85	13	2
7. Collection of audiovisual materials on being up-to-date	27	44	25
8. Collection of audiovisual materials on being comprehensive	26	43	27
9. Collection of audiovisual materials on being easy-to-use	30	39	27
10. Collection of computer-assisted instruction programs on being up-to-date	26	29	36
11. Collection of computer-assisted instruction programs on being comprehensive	25	25	40
12. Collection of computer assisted instruction programs on being easy-to-use	27	24	38
13. Availability at the library of information via online computerized database	63	22	13
14. Competence of the library staff	83	14	3
15. Research skills of the library staff	71	23	6
16. Online database search skills of the library staff	69	15	13

Q.6b

SUMMARY TABLE "1-E"
OFFICE-BASED PHYSICIANS RATE THEIR INFORMATION FACILITIES

Base: Office-based physicians who have access to a medical library

Base: 191	Positive %	Negative %	Not Sure %
1. Collection of books on being up-to-date	71	26	3
2. Collection of books on being comprehensive	74	23	3
3. Collection of books on being easy-to-use	79	18	3
4. Collection of journals on being up-to-date	88	10	2
5. Collection of journals on being comprehensive	81	16	3
6. Collection of journals on being easy-to-use	85	12	4
7. Collection of audiovisual materials on being up-to-date	38	37	23
8. Collection of audiovisual materials on being comprehensive	36	40	22
9. Collection of audiovisual materials on being easy-to-use	47	28	22
10. Collection of computer-assisted instruction programs on being up-to-date	24	29	38
11. Collection of computer-assisted instruction programs on being comprehensive	21	28	42
12. Collection of computer assisted instruction programs on being easy-to-use	21	28	43
13. Availability at the library of information via online computerized database	50	21	25
14. Competence of the library staff	80	16	3
15. Research skills of the library staff	70	18	10
16. Online database search skills of the library staff	62	14	18

Q.6b

SUMMARY TABLE "1-F"
DEANS RATE THEIR INFORMATION FACILITIES

Base: Deans who have access to a medical library

Base: 50	Positive %	Negative %	Not Sure %
1. Collection of books on being up-to-date	72	28	-
2. Collection of books on being comprehensive	70	30	-
3. Collection of books on being easy-to-use	86	10	4
4. Collection of journals on being up-to-date	84	14	2
5. Collection of journals on being comprehensive	72	26	2
6. Collection of journals on being easy-to-use	86	12	2
7. Collection of audiovisual materials on being up-to-date	54	34	10
8. Collection of audiovisual materials on being comprehensive	40	48	10
9. Collection of audiovisual materials on being easy-to-use	60	32	6
10. Collection of computer-assisted instruction programs on being up-to-date	68	24	4
11. Collection of computer-assisted instruction programs on being comprehensive	38	52	6
12. Collection of computer assisted instruction programs on being easy-to-use	64	26	6
13. Availability at the library of information via online computerized database	84	14	2
14. Competence of the library staff	94	6	-
15. Research skills of the library staff	78	14	8
16. Online database search skills of the library staff	86	10	4

Q.6b

SUMMARY TABLE "1-G"
MEDICAL SCHOOL CHIEF LIBRARIANS RATE THEIR INFORMATION FACILITIES

Base: Medical school chief librarians who have access to a medical library

Base: 50	Positive %	Negative %	Not Sure %
1. Collection of books on being up-to-date	84	16	-
2. Collection of books on being comprehensive	74	26	-
3. Collection of books on being easy-to-use	88	10	2
4. Collection of journals on being up-to-date	96	4	-
5. Collection of journals on being comprehensive	88	12	-
6. Collection of journals on being easy-to-use	86	12	2
7. Collection of audiovisual materials on being up-to-date	46	40	-
8. Collection of audiovisual materials on being comprehensive	50	38	-
9. Collection of audiovisual materials on being easy-to-use	54	32	2
10. Collection of computer-assisted instruction programs on being up-to-date	34	36	2
11. Collection of computer-assisted instruction programs on being comprehensive	24	46	2
12. Collection of computer assisted instruction programs on being easy-to-use	40	28	4
13. Availability at the library of information via online computerized database	90	6	-
14. Competence of the library staff	100	-	-
15. Research skills of the library staff	90	8	2
16. Online database search skills of the library staff	100	-	-

Q.6b

SUMMARY TABLE "1-H"
AFFILIATE HOSPITAL CHIEF LIBRARIANS RATE THEIR INFORMATION FACILITIES

Base: Affiliate hospital chief librarians who have access to a medical library

Base: 50	Positive %	Negative %	Not Sure %
1. Collection of books on being up-to-date	80	20	-
2. Collection of books on being comprehensive	76	20	4
3. Collection of books on being easy-to-use	94	2	4
4. Collection of journals on being up-to-date	96	4	-
5. Collection of journals on being comprehensive	86	12	2
6. Collection of journals on being easy-to-use	96	2	2
7. Collection of audiovisual materials on being up-to-date	42	44	-
8. Collection of audiovisual materials on being comprehensive	22	60	2
9. Collection of audiovisual materials on being easy-to-use	54	32	-
10. Collection of computer-assisted instruction programs on being up-to-date	18	20	2
11. Collection of computer-assisted instruction programs on being comprehensive	6	28	4
12. Collection of computer assisted instruction programs on being easy-to-use	20	16	2
13. Availability at the library of information via online computerized database	96	2	-
14. Competence of the library staff	94	6	-
15. Research skills of the library staff	92	6	-
16. Online database search skills of the library staff	94	6	-

CHAPTER 2: HOW MEDICAL PROFESSIONALS GET INFORMATION

Books and Journals

Not surprisingly, of all the groups surveyed, medical students have read the greatest number of books related to their field in the past year, a median of about 15. Residents report reading a median of 10 books in their field over the past twelve months, with basic science and clinical faculty following with a median of about 9 books each. Office-based physicians report reading the fewest number of books in their field, a median of about 4 in the past year (Table 2-1). Again, medical students have purchased the greatest number of books in their field in the past year -- a median of about 10 -- while clinical faculty have purchased a median of about 6, basic science faculty and residents about 4, and office-based physicians the least, just over 2 (Table 2-2).

When it comes to journals in their field, basic science and clinical faculty read the greatest number regularly -- a median of 6 and 5, respectively. Office-based physicians report reading about 4 journals regularly; residents: 3; and medical students: 2 (Table 2-3).

> Observation:
>
> Although office-based physicians are regular readers of more journals than either medical students or residents are, they read the least number of books in their field, if their recollection of last year's experience is any indication. This may simply reflect their busy schedules and the fact that journals are better than books for staying current with one's field. It is interesting to note, however, that well over half (57%) of office-based physicians who have access to a medical library (and 5% don't!) use a hospital library, not a medical school library, most frequently (Table 2-4). Judging from the size of collections reported by the chief librarians of affiliate hospitals, many books in their field may not be readily available to large numbers of office-based physicians.

Printed sources are still the media most often used when medical professionals and students need to track down specific information, but users are more likely to refer to sources in their own collections than to go to the library:

-- From 70% to 79% of the various user groups say they very often refer to books or monographs in their personal collection (Table 2-5); from 78% to 88% consider books or monographs in their personal collection to be indispensable or very useful in giving them access to the specific information they need (Table 2-6).

-- Many fewer users refer to books or monographs in the library to track down specific information; only among residents do a majority (54%) say they do so very often; 48% of clinical faculty and medical students, 46% of basic science faculty, and only 33% of office-based physicians consult books or monographs in the library very often for specific information (Table 2-7). Nonetheless, broad majorities of the user groups consider books or monographs in the library to be indispensable or very useful; the figure ranges from a low of 60% among office- based physicians to a high of 81% among basic science faculty, with clinical faculty coming in at 73% and both medical students and residents at 75% in saying that library books are at least somewhat useful in tracking down specific information (Table 2-8).

-- Substantial majorities of almost all of the user groups say they very often refer to journals they receive personally for specific information: 86% of clinical faculty, 77% of basic science faculty, 69% of office-based physicians, 65% of residents. The exception is medical students; only 38% of whom very often refer to journals they receive personally (Table 2-9). Again, large majorities of every group of users except medical students rate journals they receive personally as being indispensable or at least very useful in giving them access to specific information: 89% of clinical faculty, 85% of basic science faculty, 80% of office-based physicians, 65% of residents, and 41% of medical students (Table 2-10).

-- Again, journals in the library are used less frequently: while 71% of basic science faculty and 53% of clinical faculty say they refer to them very often, only 43% of residents, 38% of medical students, and 21% of office-based physicians do so (Table 2-11). However, majorities of all user groups -- ranging from a huge 92% of basic science faculty to 55% office-based physicians -- say journals in the library are indispensable or at least very useful (Table 2-12). In fact, majorities of all users (highest among office-based physicians, lowest among clinical faculty), deans, and chief librarians (medical school librarians are more in agreement than are affiliate hospitals' librarians) say that browsing through a wide variety of journals is one of the best means of keeping abreast of medical literature (Table 2-13). Three out of the five accrediting committee members we talked to disagree.

-- Only minorities of users, ranging from 40% of basic science faculty down to 15% of office-based physicians, say they very often refer to printed reference works or indexes like Index Medicus to track down specific information (Table 2-14). But substantial majorities -- the smallest being 55% among office-based physicians and the largest 79% of medical students -- consider such reference materials to be at least very useful (Table 2-15).

Observation:

Overall, medical professionals and students are still quite dependent on the printed word as a reference source, although as a generalization they seem to feel their personal collections of books and journals are adequate for their needs.

It's not surprising that the teaching and research faculty are the most likely to use the library and office-based physicians least likely.

Chief Librarians on Their Print Collections

Chief librarians at medical schools say their libraries have a median of 119,500 books in their collections, while their counterparts in affiliate hospital libraries report a much lower median of 5,500 books (Table 2-16). Similarly, medical school libraries are reported to hold a median of 2,075 current subscriptions to journals, compared with a much smaller median of 425 for affiliate hospitals (Table 2-17).

-- They are slightly more inclined than users to feel their libraries' books or monographs are indispensable or very useful (88% of chief medical school and 100% of affiliate hospital librarians feel this) (Table 2-18); they view other libraries' books or monographs as slightly less so in giving their staff or themselves access to specific information that they need (62% and 74%, respectively) (Table 2-19). However, approximately 3 out of 4 librarians say that they or their staff very often use their own library's books or monographs to track down specific information (Table 2-20), while slightly over half say they sometimes use these materials in other libraries (Table 2-21).

-- Journals receive even higher ratings of "indispensable" or "very useful". In this case, 98% of chief medical school librarians and 100% of affiliate hospitals' librarians rate them as such (Table 2-22); again, smaller -- though still sizeable -- percentages say other libraries' journals are as useful (chief medical schools librarians: 74%, chief affiliate hospital librarians: 96%) (Table 2-23). Eight out of ten medical school and all affiliate hospital librarians say they very often use the journals in their own libraries; 56% of medical school librarians say they sometimes use the journals of other libraries; 82% of affiliate hospital librarians say they very often do (Tables 2-24 and 2-25).

-- Printed reference work or indexes are used very often used by four out of five medical school and seven out of ten affiliate hospital librarians and staff (Table 2-26); large majorities of both groups see these indexes as indispensable or very useful (Table 2-27).

Observation:

Although librarians tend to view their libraries' collections as slightly more indispensable than do the users of those libraries, both groups see library books, monographs, and journals as highly valuable sources of information.

Colleagues and Drug Company Representatives

Colleagues, it seems, are not an independent source of information for librarians. While 64% of chief medical school librarians rate their colleagues as indispensable or very useful sources, 34% say they're only somewhat or not very useful at all. Amongst affiliate hospital chief librarians, 44% say colleagues are indispensable or very useful; over a third (34%) aren't sure how to measure them as an information source (Table 2-28). Chief medical school librarians are twice as likely as their affiliate hospital counterparts to say they sometimes use colleagues to track down information (Table 2-29).

Colleagues are often relied upon by users to track down specific information (62% of residents use them very often) (Table 2-30), but all user groups say they rarely or never use drug company detail men for this purpose (Table 2-31). Colleagues are also seen as indispensable or very useful by a high of seven out of ten residents to a lower four out of ten basic science faculty (Table 2-32). Drug company detail men are primarily seen as not very indispensable or not at all useful in giving users access to the specific information they need (Table 2-33). Of office-based physicians, 52% found drug company detail men somewhat useful or better in providing access to needed specific information. Of the same group, 44% found detail men not very or not at all useful.

Computer Access

Medical school faculty seem to have the greatest access to personal computers. Huge majorities of faculty members (basic science: 96%, clinical: 88%) own or in some other way have access to a personal computer and a sizable minority in each group (basic science: 36%, clinical: 25%) own one and have access to another PC. Smaller but still substantial majorities of the other user groups (medical students: 70%, residents: 65%, and office-based physicians: 65%), own or have access to a PC. However, about a third of all medical students, residents, and office-based physicians neither own nor have access to a personal computer (Table 2-34).

Of those who say they have access to PCs, most report that the computers are equipped with a modem or black box -- though again, it is faculty who have the edge. Approximately three out of five faculty users say the personal computers to which they have access are equipped with modems or black boxes; half of residents' computers are, and almost half of office-based physicians'. Medical students' computers are the least well equipped -- slightly less than a third of theirs have modems or black boxes (Table 2-35). PCs accessed by users are generally more likely to be found in the work or study place than they are at home, but many faculty members have them in both environments (Table 2-36).

Regardless of what the PCs are equipped with and where they're located, they have generally not been set up with the user's own bibliographic database, although faculty members are perhaps understandably more likely than others to report having done so (Table 2-37).

Online Databases

Access to online databases is almost universal ~~in~~ the medical community, but the findings indicate that they are not used very often.

Strong majorities of all user groups report they have access either through their own terminal or personal computer, through the library, or through both (Table 2-38). Medical school faculty are most likely to have access through their own PC or terminal; office-based physicians are the one user group in which a substantial minority (26%) say they don't have access at all. Of those with access, majorities again say they've used an online database in the past twelve months (Table 2-39), although these majorities are a little lower among medical students and office-based physicians than among the other user groups.

> Observation:
>
> Over one-quarter (26%) of office-based physicians do not have access to databases; 37% of those with access haven't used one in the past year. These findings are rather

> alarming, given the proliferation of information in the medical profession. For those office-based physicians who do not know that they can get information from their hospital library, this lack of database access and knowledge may be most serious, for it may well be that it is these very professionals who are the ones most in need of information (Tables 2-38 and 2-39).

In principle, the medical community well understands the advantages of and the need for online databases. Among every group of users, and among deans and chief librarians at medical schools and affiliate hospitals as well as all five members of the accrediting committee we talked to, there is overwhelming agreement that "the information explosion in the medical sciences has made computerized information systems technology an essential component in a university, medical school, or hospital" (Table 2-40). Chief librarians almost all agree strongly with this proposition. Similarly huge majorities of all user groups, of deans, of chief medical librarians, and the five accrediting committee members in this study agree that "with computerized database technology, it's easier and faster to access larger volumes of data today than it was to access far smaller volumes of data ten years ago" (Table 2-41). Again, librarians are more likely than others to agree strongly. The speed and ease by which these large volumes of data can be accessed is seen as essential by those in the medical profession due, at least in part, to their feelings about the weight such access carries. Majorities of all user groups (ranging from a high of 77% of office-based physicians to a low of 57% of basic science faculty), deans (78%), and chief librarians (medical schools': 92%, affiliate hospitals': 96%) feel that fast and reliable access to information can mean the difference between life and death (Table 2-42). While most of the five accrediting committee members agree, one of them disagrees somewhat.

Ninety-eight percent of medical school librarians and 100% of affiliate hospital librarians whose libraries have access to online databases say they're indispensable or very useful (Table 2-43). Nine out of ten of each group say they very often refer to databases; but fewer -- seven out of ten medical school and three out of ten affiliate hospital librarians -- say they very often use a database or indexing system created by their own library (Tables 2-44 and 2-45). Two out of five affiliate hospital librarians say they aren't sure how often the database in their own library is used.

Clear majorities of basic science and clinical faculty and residents who have access to online databases rate databases available in the library as indispensable or very useful, while somewhat less than half of medical students and office-based physicians with access say the same thing (Table 2-47). However, to track down specific information, only thin majorities of basic science and clinical faculty and residents say they use such databases in the library at least sometimes, while majorities of medical students and office-based physicians report they rarely or never do so (Table 2-46).

Card catalogues and on-line catalogues are designed to provide bibliographic details and not answers to specific technical questions. There is a substantial difference between on-line computerized databases of journal article citations which are closely indexed, and card catalogues of books which are broadly indexed, and the two should not be equated or compared. Librarians are not satisfied with their library's own indexing system or data base. While chief librarians hold high views of online computerized databases -- 98% of medical school librarians and 100% of affiliate hospital librarians say they're indispensable or very useful (Table 2-43) -- a much lower percentage (72% of chief medical school librarians and only 36% of chief librarians at affiliate hospitals) say that their own library's indexing system or database falls into the "indispensable" or "very useful" categories. Eight percent of medical school chief librarians and 14% of affiliate hospital chief librarians say their own systems are not useful at all, and fully 44% of affiliate hospital librarians say they aren't sure how they'd rate them (Table 2-48). Again among those who have access to online databases, and even more strikingly, decisive majorities of all user groups -- largest among residents, medical students, and office-based physicians -- say they never refer to online databases they access through their own terminal or personal computer (Table 2-49). Correspondingly, few in any group think this kind of access is particularly useful for tracking down specific information, although medical school faculty are more likely than others to see some value in it (Table 2-50).

In comparison, when asked how often they refer to their own personal indexing system or database to track down specific information, "never" answers range from 52% of medical students to 17% of basic science faculty (Table 2-51). On rating their own personal indexing system or database, users are not very laudatory. A high of 31% of basic science faculty say their own systems are indispensable; that percentage drops all the way down to only 9%, 7%, and 3% of office-based physicians, residents, and medical students, respectively, giving the same rating. In fact, fully thirty percent of residents say their systems are not at all useful; 21% of medical students, 18% of clinical faculty; 17% of office-based physicians; and 12% of basic science faculty concur (Table 2-52). Implicit in these findings is the fact that health professionals generally are not skilled in organized personal information resources (personal indexing system or data base).

Among those who have used an online computerized database in the last twelve months, the majority in each user group -- ranging from 60% of the medical students to a high 93% of office-based physicians -- say they generally have a librarian or information specialist do their database searches for them (Table 2-53). And what would be users' preference, if they had a choice? In every group, more people would like to do the searches themselves than say they generally do so now. Basic science faculty and medical students who have used an online database in the past twelve months split about evenly between preferring to do searches themselves and preferring to have a librarian or information specialist do them. Among clinical faculty and -- especially -- office-based physicians, there is still a clear preference for having a specialist do the search, and residents lean in this direction as well (Table 2-54). (For those who do do the searches themselves, they've been doing them for no longer than 2 1/2 years. Clinical faculty has been conducting them themselves for a little less than 1 1/2 years; medical students for 1 3/4 years; basic science faculty for 2 1/4 years; and residents and office-based physicians have each been accessing by themselves for 2 1/2 years) (Table 2-55).

Virtually all chief librarians report their libraries have access to online databases for the medical sciences (Table 2-56). According to librarians, very little online bibliographic searching is done by end users at the present time (Table 2-57). But while a sizable minority of librarians would prefer to see an information specialist continue to do the searches, a majority or plurality say "it depends" (Table 2-58).

When users are asked which database vendors they have used in the past year, three are mentioned most often: "Medline/Medlars/Index Medicus", "BRS/Colleague", and "National Library of Medicine (NLM)". But a third of basic science faculty, almost half of clinical faculty and residents, and over half of medical students and office-based physicians say they don't know (Table 2-59). When those who have used online information systems in the past twelve months are asked which two or three specific databases are most important to them, the names "Medline/Medlars/Index Medicus online" are almost the only ones to come up among all user groups, although over one-half of the residents, medical students, and office-based physicians, and from one-third to two out of five basic science and clinical faculty, are unsure (Table 2-60).

Not surprisingly, chief librarians are more knowledgeable. At least eight major vendors were named as ones to which their libraries subscribe; the most frequently mentioned being "BRS/Colleague", "DIALOG", and "National Library of Medicine (NLM)" (Table 2-61). Nonetheless, when asked which two or three are the most important to them, "Medline/Medlars/Index Medicus online" are mentioned by overwhelming majorities of both medical school and affiliate hospital librarians, while no other single name comes up for more than one in five in either group (Table 2-62). All in all, medical school librarians report their library accesses a median of 20 databases specialized for the medical sciences, while affiliate hospital librarians report a median of 15 (Table 2-63).

(In total, chief medical school librarians say their libraries have access to a median of about 211 different online computerized databases, while affiliate hospitals' chief librarians say their libraries have access to a median of about 169 -- Table 2-64).

Comfort in Using Various Types of Information Sources

Without a doubt, users are more comfortable with using printed books and journals than they are with using online computerized databases or microfilm or microfiche.

Almost all users in all user groups feel very or at least somewhat comfortable with books and journals. Both types of faculty are the most comfortable in using online computerized databases; office-based physicians the least so. But microfilm or microfiche use leave sizable amounts of users feeling not very or not at all comfortable. Here, it is faculty that is more uncomfortable with these sources than are office-based physicians or students and residents. As a matter of fact, the majority of students and residents feel very or at least somewhat comfortable with using them; practically as comfortable as they do in using computerized databases (Tables 2-65 through 2-67).

Q.2a

Table 2-1

Q.: Now I'd like to ask you a few questions about your use of information sources relating to your field. In the past twelve months, how many books in your field -- or related to your field in some way -- would you say you have read?

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
0/None	6	2	-	-	15
1-5	30	31	12	28	44
6-10	16	24	27	26	18
11-15	22	19	23	18	11
16-20	5	6	11	8	3
21-25	6	5	11	5	*
26-30	2	3	2	4	1
31-35	-	-	1	1	-
36-40	1	1	4	2	*
41-45	-	-	-	-	-
46-50	4	4	5	4	-
Over 50	4	5	2	4	4
Not Sure	3	1	1	1	2
Mean number of books	16.5	19.7	18.1	15.6	14.2
Median number of books	9.5	9.1	14.6	10.0	4.2
Base	98	102	99	104	201

---

*Less than 0.5%.

Q.2c

Table 2-2

Q.: How many books in your field -- or related to your field -- did you buy in the past twelve months?

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
0/None	13	11	3	8	22
1	5	3	4	8	10
2	12	11	6	17	17
3	14	7	5	12	8
4	9	9	7	13	11
5	8	9	7	9	6
6	12	18	4	8	4
7	1	-	4	3	1
8	1	6	6	6	2
9	-	-	1	-	-
10	10	5	20	6	3
11-15	7	10	13	7	6
16-20	-	7	12	3	3
More than 20	5	6	6	3	3
Not sure	1	-	1	-	1
Mean number of books	6.9	30.1	10.2	5.6	19.4
Median number of books	4.0	5.6	9.6	4.0	2.5
Base	98	102	99	104	201

---

*Less than 0.5%.

Q.2d

Table 2-3

Q.: How many journals in your field do you read regularly?

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
0/None	2	-	8	3	1
1	3	-	19	7	3
2	6	11	33	20	16
3	8	12	20	25	23
4	8	18	9	14	16
5	18	12	3	13	10
6	15	11	1	11	9
7	4	7	1	2	2
8	11	4	-	2	2
9	-	2	1	-	-
10	4	8	1	1	5
More than 10	19	17	3	2	10
Not sure	-	-	-	-	*
Mean number of journals	12.7	7.3	32.6	13.3	5.7
Median number of journals	5.8	5.3	2.2	3.3	3.9
Base	98	102	99	104	201

---

*Less than 0.5%.

Q.6e

Table 2-4

Q.: Which kind of library do you make use of most frequently?

Base: Users -- Have access to a medical library

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Medical school library	96	83	84	45	28
Hospital library	2	12	11	47	57
Other university library	1	2	5	4	3
County medical society library	-	-	-	-	4
Personal library	-	-	-	3	5
Other	1	2	-	-	3
Not sure	-	1	-	1	1
Base	98	102	99	104	191

Q.5a

Table 2-5

Q.: How often would you say you refer to . . . books or monographs in your personal collection to track down specific information?

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Very often	73	79	77	79	70
Sometimes	22	16	19	19	21
Rarely	2	5	3	1	7
Never	2	-	1	1	1
Not sure	-	-	-	-	*
Base	98	102	99	104	201

---

*Less than 0.5%.

Q.5b

Table 2-6

Q.: Would you rate . . . . books or monographs in your personal collection as indispensable, very useful, somewhat useful, not very useful, or not at all useful in giving you access to specific information you need?

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Indispensable	35	43	38	32	28
Very useful	50	40	40	56	52
Somewhat useful	12	16	16	13	16
Not very useful	2	1	3	-	2
Not at all useful	1	-	2	-	1
Not sure	-	-	-	-	*
Base	98	102	99	104	201

---

*Less than 0.5%.

Q.5a

Table 2-7

Q.: How often would you say you refer to . . . books or monographs in a library to track down specific information?

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Very Often	46	48	48	54	33
Sometimes	41	40	47	38	42
Rarely	13	12	4	9	20
Never	-	-	-	-	4
Not sure	-	-	-	-	*
Base	98	102	99	104	201

---

*Less than 0.5%.

Q.5b

Table 2-8

Q.: Would you rate . . . . books or monographs in a library as indispensable, very useful, somewhat useful, not very useful, or not at all useful in giving you access to specific information you need?

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Indispensable	30	30	32	24	18
Very useful	51	43	43	51	42
Somewhat useful	15	23	23	25	30
Not very useful	4	3	1	-	6
Not at all useful	-	-	-	-	2
Not sure	-	1	-	-	1
Base	98	102	99	104	201

Q.5a

Table 2-9

Q.: How often would you say you refer to . . . journals you receive personally to track down specific information?

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Very often	77	86	38	65	69
Sometimes	10	9	31	26	24
Rarely	5	2	20	5	4
Never	8	2	10	3	2
Not sure	-	1	-	1	*
Base	98	102	99	104	201

---

*Less than 0.5%.

Q.5b

Table 2-10

Q.: Would you rate . . . journals you receive personally as indispensable, very useful, somewhat useful, not very useful, or not at all useful in giving you access to specific information you need?

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Indispensable	41	42	10	19	26
Very useful	44	47	31	46	54
Somewhat useful	7	8	39	28	16
Not very useful	3	-	11	3	1
Not at all useful	5	1	6	1	1
Not sure	-	2	2	3	*
Base	98	102	99	104	201

---

*Less than 0.5%.

Q.5a

Table 2-11

Q.: How often would you say you refer to . . . journals in a library to track down specific information?

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Very often	71	53	38	43	21
Sometimes	23	38	49	42	46
Rarely	4	7	10	13	26
Never	-	1	1	1	5
Not sure	1	1	1	-	1
Base	98	102	99	104	201

Q.5b

Table 2-12

Q.: Would you rate . . . journals in a library as indispensable, very useful, somewhat useful, not very useful, or not at all useful in giving you access to specific information you need?

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Indispensable	46	36	30	29	15
Very useful	46	47	39	42	40
Somewhat useful	8	15	28	27	35
Not very useful	-	-	1	1	5
Not at all useful	-	1	1	-	2
Not sure	-	1	-	1	1
Base	98	102	99	104	201

Q.1m

Table 2-13

Q.: There has been much discussion recently about the so-called "information explosion," the impact it may be having on many fields today -- especially the medical sciences -- and how the challenges it poses might be faced. Do you agree or disagree with the following statement? . . . One of the best ways to keep up with medical literature is to "browse" through a wide variety of journals.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Agree strongly	11	25	21	14	24	10	16	18
Agree somewhat	49	25	39	51	43	44	56	34
Disagree somewhat	31	32	30	26	21	30	20	24
Disagree strongly	9	16	7	7	10	16	6	22
Not sure	-	2	2	2	1	-	2	2
Base	98	102	99	104	201	50	50	50

Q.5a

Table 2-14

Q.: How often would you say you refer to . . . printed reference works or indexes like Index Medicus to track down specific information?

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Very often	40	38	39	32	15
Sometimes	33	39	46	48	48
Rarely	27	19	12	20	30
Never	1	4	2	-	6
Not sure	-	-	-	-	1
Base	98	102	99	104	201

Q.5b

Table 2-15

Q.: Would you rate . . . printed reference works or indexes like Index Medicus as indispensable, very useful, somewhat useful, not very useful, or not at all useful in giving you access to specific information you need?

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Indispensable	36	35	38	27	14
Very useful	42	36	41	42	41
Somewhat useful	16	24	18	24	32
Not very useful	5	2	1	7	8
Not at all useful	-	2	1	-	4
Not sure	1	1	-	-	1
Base	98	102	99	104	201

Q.2a

Table 2-16

Q.: How many books does the (READ NAME OF INSTITUTION) medical library have in its collection?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Less than 10,000	4	60
At least 10,000 but less than 20,000	4	10
At least 20,000 but less than 30,000	6	8
At least 30,000 but less than 40,000	6	6
At least 40,000 but less than 50,000	4	6
At least 50,000 but less than 60,000	8	2
At least 60,000 but less than 70,000	2	2
At least 70,000 but less than 80,000	4	2
At least 80,000 but less than 90,000	2	2
At least 90,000 but less than 100,000	-	-
At least 100,000 but less than 200,000	38	2
At least 200,000 but less than 300,000	18	-
At least 300,000 but less than 400,000	-	-
At least 400,000 but less than 500,000	2	-

(Continued)

Q.2a

Table 2-16 (Continued)

Q.: How many books does the (READ NAME OF INSTITUTION) medical library have in its collection?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
500,000 and over	-	-
Not sure	2	-
Mean	120,700	17,800
Median	119,500	5,500
Mode	at least 50,000 but less than 150,000	2,000
Base	50	50

Q.2b

Table 2-17

Q.: How many current subscriptions -- that is, currently received journals -- does the library hold, including both subscriptions and gifts?

	Chief Librarians	
	Medical Schools %	Affiliate Hospitals %
Less than 500	6	52
At least 500 but less than 1000	6	26
At least 1000 but less than 1500	12	6
At least 1500 but less than 2000	16	4
At least 2000 but less than 2500	12	4
At least 2500 but less than 3000	16	2
At least 3000 but less than 3500	8	4
At least 3500 but less than 4000	4	-
At least 4000 but less than 4500	8	-
At least 4500 but less than 5000	-	-
5000 or more	6	2
Not sure	6	-
Mean	6,818	1,062
Median	2,075	425
Mode	1,800	500
Base	50	50

Q.4b

Table 2-18

Q.: Would you rate . . . books or monographs in your library as indispensable, very useful, somewhat useful, not very useful or not at all useful in giving you or your staff access to specific information you need?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Indispensable	60	68
Very useful	28	32
Somewhat useful	12	-
Not very useful	-	-
Not at all useful	-	-
Not sure	-	-
Base	50	50

Q.4b

Table 2-19

Q.: Would you rate . . . books or monographs in other libraries as indispensable, very useful, somewhat useful, not very useful or not at all useful in giving you or your staff access to specific information you need?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Indispensable	26	38
Very useful	36	36
Somewhat useful	36	24
Not very useful	2	-
Not at all useful	-	2
Not sure	-	-
Base	50	50

Q.4a

Table 2-20

Q.: Now I'd like to ask you about research for library patrons that you or other professionals in your library may do. How often would you say you or staff under your direction refer to . . . books or monographs in your library to track down specific information?

	Chief Librarians	
	Medical Schools %	Affiliate Hospitals %
Very often	72	78
Sometimes	26	22
Rarely	2	-
Never	-	-
Not sure	-	-
Base	50	50

Q.4a

Table 2-21

Q.: Now I'd like to ask you about research for library patrons that you or other professionals in your library may do. How often would you say you or staff under your direction refer to . . . . books or monographs in other libraries to track down specific information?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Very often	18	36
Sometimes	56	52
Rarely	24	10
Never	2	2
Not sure	-	-
Base	50	50

Q.4b

Table 2-22

Q.: Would you rate . . . journals in your library as indispensable, very useful, somewhat useful, not very useful or not at all useful in giving you or your staff access to specific information you need?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Indispensable	84	98
Very useful	14	2
Somewhat useful	2	-
Not very useful	-	-
Not at all useful	-	-
Not sure	-	-
Base	50	50

Q.4b

Table 2-23

Q.: Would you rate . . . journals in other libraries as indispensable, very useful, somewhat useful, not very useful or not at all useful in giving you or your staff access to specific information you need?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Indispensable	32	84
Very useful	42	12
Somewhat useful	26	4
Not very useful	-	-
Not at all useful	-	-
Not sure	-	-
Base	50	50

Q.4a

Table 2-24

Q.: Now I'd like to ask you about research for library patrons that you or other professionals in your library may do. How often would you say you or staff under your direction refer to . . . journals in your library to track down specific information?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Very often	84	100
Sometimes	16	-
Rarely	-	-
Never	-	-
Not sure	-	-
Base	50	50

Q.4a

Table 2-25

Q.: Now I'd like to ask you about research for library patrons that you or other professionals in your library may do. How often would you say you or staff under your direction refer to . . . journals in other libraries to track down specific information?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Very often	30	82
Sometimes	56	18
Rarely	14	-
Never	-	-
Not sure	-	-
Base	50	50

Q.4a

Table 2-26

Q.: Now I'd like to ask you about research for library patrons that you or other professionals in your library may do. How often would you say you or staff under your direction refer to . . . printed reference work or indexes like Index Medicus to track down specific information?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Very often	82	68
Sometimes	14	12
Rarely	4	16
Never	-	4
Not sure	-	-
Base	50	50

Q.4b

Table 2-27

Q.: Would you rate . . . printed reference work or indexes like Index Medicus as indispensable, very useful, somewhat useful, not very useful or not at all useful in giving you or your staff access to specific information you need?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Indispensable	84	64
Very useful	12	26
Somewhat useful	4	8
Not very useful	-	-
Not at all useful	-	2
Not sure	-	-
Base	50	50

Q.4b

Table 2-28

Q.: Would you rate . . . colleagues as indispensable, very useful, somewhat useful, not very useful or not at all useful in giving you or your staff access to specific information you need?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Indispensable	32	28
Very useful	32	16
Somewhat useful	30	6
Not very useful	4	2
Not at all useful	-	14
Not sure	2	34
Base	50	50

Q.4a

Table 2-29

Q.: Now I'd like to ask you about research for library patrons that you or other professionals in your library may do. How often would you say you or staff under your direction refer to . . . colleagues to track down specific information?

	Chief Librarians	
	Medical Schools %	Affiliate Hospitals %
Very often	26	22
Sometimes	52	26
Rarely	18	6
Never	2	12
Not sure	2	34
Base	50	50

Q.5a

Table 2-30

Q.: How often would you say you refer to . . . colleagues to track down specific information?

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Very often	36	25	40	62	36
Sometimes	27	41	30	24	32
Rarely	26	23	14	7	19
Never	12	12	14	8	11
Not sure	-	-	1	-	1
Base	98	102	99	104	201

Q.5a

Table 2-31

Q.: How often would you say you refer to . . . drug company detail men to track down specific information?

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Very often	1	3	2	1	10
Sometimes	1	7	17	19	29
Rarely	26	29	46	53	33
Never	69	61	31	27	26
Not sure	3	-	3	-	1
Base	98	102	99	104	201

Q.5b

Table 2-32

Q.: Would you rate . . . colleagues as indispensable, very useful, somewhat useful, not very useful, or not at all useful in giving you access to specific information you need?

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Indispensable	21	13	24	32	16
Very useful	22	36	37	39	38
Somewhat useful	31	26	19	17	27
Not very useful	13	10	6	5	9
Not at all useful	10	9	7	5	6
Not sure	2	6	6	2	3
Base	98	102	99	104	201

Q.5b

Table 2-33

Q.: Would you rate . . . drug company detail men as indispensable, very useful, somewhat useful, not very useful, or not at all useful in giving you access to specific information you need?

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Indispensable	-	-	1	-	3
Very useful	1	4	8	7	13
Somewhat useful	7	13	27	31	36
Not very useful	13	18	25	36	22
Not at all useful	70	63	29	27	22
Not sure	8	3	9	-	3
Base	98	102	99	104	201

Q.14a

Table 2-34

Q.: Whether or not you use online computerized databases, do you own a personal computer or have access to one?

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Own	29	30	19	19	38
Have access	31	33	48	43	23
Own one and have access to another	36	25	3	3	4
Rent it	-	-	-	-	-
Belongs to my school/ hospital	-	-	-	-	*
Neither own nor have access	5	10	29	35	34
Not sure	-	1	-	-	1
Base	98	102	99	104	201

---

*Less than 0.5%.

Q.14b

Table 2-35

Q.: (IS THE PERSONAL COMPUTER/ARE ANY OF THE PERSONAL COMPUTERS) equipped with a modem or black box for telecommunication?

Base: Own or have access to a personal computer

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Equipped with modem or black box	60	58	31	50	46
Not equipped	33	32	56	29	44
Not sure	6	10	13	21	10
Base	93	91	70	68	131

Q.14c

Table 2-36

Q.: Is the personal computer at home, or where you work or study?

Base: Own or have access to a personal computer

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Home	9	22	37	29	37
Work/study	42	44	57	57	47
Both	49	34	6	9	15
Not sure	-	-	-	4	2
Base	93	91	70	68	131

Q. 14d

Table 2-37

Q.: Have you set up your own bibliographic database on the PC?

Base: Own or have access to a personal computer

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Have set up bibliographic database	29	24	10	16	5
Have not set up	71	75	90	84	95
Not sure	-	1	-	-	-
Base	93	91	70	68	131

Q.3a

Table 2-38

Q.: Do you have access to online computerized databases for the medical sciences, through either your own terminal or personal computer or through a library?

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Have access through own terminal/pc	12	9	5	2	9
Have access through library	64	67	84	86	60
Have access through both	23	25	2	5	3
Don't have access	-	-	7	6	26
Not sure	-	-	2	2	1
Base	98	102	99	104	201

Q.3b

Table 2-39

Q.: Have you used an online computerized database in the past twelve months?

Base: Have access through own terminal/pc, through library, or both.

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Have used	77	80	67	78	62
Have not used	23	20	33	22	37
Not sure	-	-	-	-	1
Base	98	102	90	96	146

Q.1d

Table 2-40

Q.: There has been much discussion recently about the so-called "information explosion," the impact it may be having on many fields today -- especially the medical sciences -- and how the challenges it poses might be faced. Do you agree or disagree with the following statement? . . . The "information explosion" in the medical sciences has made computerized information systems technology an essential component in a university, medical school, or hospital.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Agree strongly	77	75	56	69	63	76	92	94
Agree somewhat	18	20	37	26	30	22	6	4
Disagree somewhat	4	2	6	5	3	2	-	-
Disagree strongly	-	1	-	-	1	-	2	-
Not sure	1	2	1	-	1	-	-	2
Base	98	102	99	104	201	50	50	50

Q.1c

Table 2-41

Q.: There has been much discussion recently about the so-called "information explosion," the impact it may be having on many fields today -- especially the medical sciences -- and how the challenges it poses might be faced. Do you agree or disagree with the following statement? . . . With computerized database technology, it's easier and faster to access larger volumes of data today than it was to access far smaller volumes of data ten years ago.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Agree strongly	61	68	56	62	67	74	84	86
Agree somewhat	29	27	37	34	27	26	14	12
Disagree somewhat	5	2	4	3	2	-	-	2
Disagree strongly	1	-	1	-	1	-	2	-
Not sure	4	3	2	2	3	-	-	-
Base	98	102	99	104	201	50	50	50

Q.1g

Table 2-42

Q.: There has been much discussion recently about the so-called "information explosion," the impact it may be having on many fields today -- especially the medical sciences -- and how the challenges it poses might be faced. Do you agree or disagree with the following statement? . . . In the medical field, fast and reliable access to information can mean the difference between life and death.

	Users						Chief Librarians	
	Teaching/Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Agree strongly	27	20	22	26	31	24	42	62
Agree somewhat	30	44	45	48	46	54	50	34
Disagree somewhat	18	24	19	20	16	16	6	-
Disagree strongly	11	8	10	5	6	6	2	2
Not sure	14	5	3	1	*	-	-	2
Base	98	102	99	104	201	50	50	50

---

*Less than 0.5%.

Q.4b

Table 2-43

Q.: Would you rate . . . online computerized databases as indispensable, very useful, somewhat useful, not very useful or not at all useful in giving you or your staff access to specific information you need?

Base: Library has access to online computerized databases for the medical sciences

	Chief Librarians	
	Medical Schools %	Affiliate Hospitals %
Indispensable	88	92
Very useful	10	8
Somewhat useful	2	-
Not very useful	-	-
Not at all useful	-	-
Not sure	-	-
Base	50	48

Q.4a

Table 2-44

Q.: Now I'd like to ask you about research for library patrons that you or other professionals in your library may do. How often would you say you or staff under your direction refer to . . . online computerized databases to track down specific information?

Base: Library has access to online computerized databases for the medical sciences

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Very often	90	94
Sometimes	10	6
Rarely	-	-
Never	-	-
Not sure	-	-
Base	50	48

Q.4a

Table 2-45

Q.: Now I'd like to ask you about research for library patrons that you or other professionals in your library may do. How often would you say you or staff under your direction refer to . . . your library's own indexing system or database to track down specific information?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Very often	74	32
Sometimes	8	2
Rarely	-	4
Never	16	18
Not sure	2	44
Base	50	50

Q.5a

Table 2-46

Q.: How often would you say you refer to . . . online computerized databases available in a library to track down specific information?

Base: Have access through own terminal/pc, through library, or both.

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Very often	19	16	8	7	6
Sometimes	35	39	33	44	32
Rarely	32	29	39	36	40
Never	12	14	16	10	14
Not sure	2	2	4	2	8
Base	98	102	90	96	146

Q.5b

Table 2-47

Q.: Would you rate . . . online computerized databases available in a library as indispensable, very useful, somewhat useful, not very useful, or not at all useful in giving you access to specific information you need?

Base: Have access through own terminal/pc, through library, or both.

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Indispensable	20	10	13	19	9
Very useful	46	51	34	39	40
Somewhat useful	19	21	31	27	28
Not very useful	4	3	4	7	7
Not at all useful	7	10	7	3	4
Not sure	3	6	10	5	12
Base	98	102	90	96	146

Q.4b

Table 2-48

Q.: Would you rate . . . your library's own indexing system or database as indispensable, very useful, somewhat useful, not very useful or not at all useful in giving you or your staff access to specific information you need?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Indispensable	64	32
Very useful	8	4
Somewhat useful	8	-
Not very useful	2	6
Not at all useful	8	14
Not sure	10	44
Base	50	50

Q.5a

Table 2-49

Q.: How often would you say you refer to . . . online computerized databases you access through your own terminal or personal computer to track down specific information?

Base: Have access through own terminal/pc, through library, or both.

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Very often	15	9	3	4	2
Sometimes	13	20	2	4	5
Rarely	12	9	8	1	12
Never	57	59	78	86	69
Not sure	2	4	9	4	11
Base	98	102	90	96	146

Q.5b

Table 2-50

Q.: Would you rate . . . online computerized databases you access through your own terminal or personal computer as indispensable, very useful, somewhat useful, not very useful, or not at all useful in giving you access to specific information you need?

Base: Have access through own terminal/pc, through library or both.

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Indispensable	10	4	2	7	3
Very useful	19	24	9	8	14
Somewhat useful	13	10	11	2	15
Not very useful	-	6	7	8	6
Not at all useful	41	42	43	51	36
Not sure	16	15	28	23	26
Base	98	102	90	96	146

Q.5a

Table 2-51

Q.: How often would you say you refer to . . . your own personal indexing system or database to track down specific information?

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Very often	48	42	8	20	18
Sometimes	22	15	16	18	20
Rarely	12	12	18	13	19
Never	17	25	52	46	39
Not sure	-	6	6	2	4
Base	98	102	99	104	201

Q.5b

Table 2-52

Q.: Would you rate . . . your own personal indexing system or database as indispensable, very useful, somewhat useful, not very useful, or not at all useful in giving you access to specific information you need?

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Indispensable	31	26	3	7	9
Very useful	26	24	16	20	26
Somewhat useful	22	17	27	23	23
Not very useful	5	6	8	11	11
Not at all useful	12	18	21	30	17
Not sure	4	10	24	10	12
Base	98	102	99	104	201

Q.3c

Table 2-53

Q.: When you access information via online databases, do you generally sit at a terminal or pc and do the search yourself, or does a librarian or information specialist trained in search strategies do it for you?

Base: Have used an online computerized database in the past twelve months

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Do it myself	19	15	30	17	2
Librarian/specialist does it for me	63	71	60	79	93
Someone else does it, but not a librarian/ trained information specialist	3	4	2	-	1
I do it sometimes/ specialist does it sometimes	15	11	8	4	2
Not sure	1	-	-	-	1
Base	75	82	60	75	91

Q.3e

Table 2-54

Q.: What is your preference?

Base: Have used an online computerized database in the past twelve months

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Do it myself	45	29	48	40	12
Have librarian/ specialist do it for me	41	65	45	53	80
Have someone else do it, but not a librarian/trained information specialist	4	2	2	3	5
Depends	7	4	5	3	2
Not sure	3	-	-	1	-
Base	75	82	60	75	91

Q.3d

Table 2-55

Q.: For how many years have you been doing online database searches yourself?

Base: Do search myself or sometimes do it myself
or specialist does it sometimes.

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Less than 1 year	20	29	9	31	-
1 year	12	19	30	6	25
2 years	24	10	35	13	25
3 years	24	10	17	31	50
4 years	8	-	-	6	-
5 years	-	-	4	6	-
6 years	-	-	-	6	-
7 years	4	5	-	-	-
8 years	-	5	-	-	-
9 years	-	-	-	-	-
10 years	8	14	-	-	-
Not sure	-	10	4	-	-
Mean number of years	2.8	3.3	1.9	2.3	2.3
Median number of years	2.3	1.4	1.8	2.5	2.5
Base	25	21	23	16	4

Q.3a

Table 2-56

Q.: Does your library have access to online computer databases for the medical sciences?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Has access	100	96
Does not	-	2
Not sure	-	2
Base	50	50

Q.3b

Table 2-57

Q.: Within your library, how much of the online bibliographic searching is done by end users, rather than by librarians or information specialists?

Base: Library has access to online computerized databases for the medical sciences

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
All of it	2	6
A great deal	4	4
Some	10	17
Very little	48	21
None	36	50
Not sure	-	2
Base	50	48

Q.3c

Table 2-58

Q.: **What is your preference?**

Base: Library has access to online computerized databases for the medical sciences

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Do it themselves	10	8
Have librarian/specialist do it for them	30	38
Have someone else do it, but not a librarian/trained information specialist	-	4
Depends	58	50
Not sure	2	-
Base	50	48

Q.3f

Table 2-59

Q.: Which database vendors have you used in the past twelve months?

Base: Have used an online computerized database
in the past twelve months

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
AMA Net	-	-	-	-	2
BRS/Colleague	15	16	5	5	3
Dialog	7	1	-	-	-
GTE Telenet	-	-	2	-	-
Mead	-	1	7	1	3
Medis	-	-	5	-	3
Minet	-	1	-	1	-
National Library of Medicine (NLM)	29	27	3	4	5
Medline/Medlars/ Index Medicus	20	16	22	36	16
Other	9	11	8	9	9
Not sure	33	43	52	49	60
Base	75	82	60	75	91

Q.3g

Table 2-60

Q.: And thinking of specific online databases for the medical sciences made available through the vendors, which two or three are most important to you?

Base: Have used an online computerized database in the past twelve months

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
AAMSI Communications Network	-	-	-	-	-
ACS Journals Online	-	-	-	-	-
American Hospital Association Medical Device Database	-	-	-	-	-
Arthritis Information Clearinghouse Database	-	-	-	-	-
Avline (Audiovisuals Online)	-	-	-	-	-
Biological Abstracts	1	-	-	-	-
Bioethics Line	-	-	-	-	-
Cancerline	1	1	-	-	-
Catline	-	-	-	-	-
Chemical Abstracts	4	-	-	-	-
Chemline	-	1	-	-	-
Clinical Literature Information	-	-	-	-	-
Clinprot	-	1	-	-	-
Colleague (BRS Saunders)	7	10	-	3	-

(Continued)

Q.3g

Table 2-60 (Continued)

Q.: And thinking of specific online databases for the medical sciences made available through the vendors, which two or three are most important to you?

Base: Have used an online computerized database in the past twelve months

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Comprehensive Core Medical Library	-	-	-	-	-
Diack Newsletter	-	-	-	-	-
Disease Information	-	-	-	-	-
Drug Information	-	-	-	-	-
Drug Information Fulltext	-	-	-	-	-
Electronic Yellow Pages - Professionals Directory	-	-	-	-	-
Embase - Excerpta Medical (EMED)	-	1	-	-	-
ENSDF - Medlist	-	-	-	-	-
Food and Drug Administration Bulletin Board	-	-	-	-	-
Grateful Med	-	1	-	-	-
Grips Training File	-	-	-	-	-
Health Audiovisual Online Catalog - Ohio	-	-	-	-	-
Health Benefit Cost Containment Newsletter	-	-	-	-	-
Health Planning and Admin	-	-	-	-	-
Histline	-	-	-	-	-

(Continued)

Q.3g

Table 2-60 (Continued)

Q.: And thinking of specific online databases for the medical sciences made available through the vendors, which two or three are most important to you?

Base: Have used an online computerized database in the past twelve months

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
International Pharmaceutical Abstracts	-	-	-	-	-
IRCS Medical Science	-	-	-	-	-
ISI/Biomed	-	2	-	-	-
Life: Net	-	-	-	-	-
Medical Abstracts Newsletter	-	-	-	-	-
Medical Procedure Coding and Nomenclature	-	-	-	-	-
Medline/Medlars/ Index Medicus Online	49	49	27	44	30
Minimedline	1	-	-	1	2
Nursing and Allied Health Line	-	-	-	-	-
Paperchase	1	5	3	1	-
PDQ	-	1	3	-	-
PDQ Directory	-	-	-	-	-
Phycom Service	-	-	-	-	2
Pre-med	-	-	-	-	-
Scisearch	1	1	-	-	-
Serline	-	-	-	-	-

(Continued)

Q.3g

Table 2-60 (Continued)

Q.: And thinking of specific online databases for the medical sciences made available through the vendors, which two or three are most important to you?

Base: Have used an online computerized database in the past twelve months

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Socio-Economic Bibliographic Information	-	-	-	-	-
Superindex	-	-	-	-	-
Toxline	3	2	-	-	-
Other	13	7	13	4	9
Not sure	35	41	58	52	59
Base	75	82	60	75	91

Q.3d

Table 2-61

Q.: Which database vendors does your library subscribe to?

Base: Library has access to online computerized databases for the medical sciences

	Chief Librarians	
	Medical Schools %	Affiliate Hospitals %
AMA Net	-	2
BRS/Colleague	86	65
Dialog	74	50
GTE Telenet	-	-
Mead	6	25
Medis	2	10
Minet	2	-
National Library of Medicine (NLM)	70	60
Lock Leed	16	-
SDC	20	-
Medline/Medlars	8	4
Other	30	4
Not sure	-	-
Base	50	48

Q.3g

Table 2-62

Q.: And again, thinking of specific online databases for the medical sciences, which two or three are most important to you?

Base: Library has access to online computerized databases for the medical sciences

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
AAMSI Communications Network	-	-
ACS Journals Online	-	-
American Hospital Association Medical Device Database	-	2
Arthritis Information Clearinghouse Database	-	-
Avline (Audiovisuals Online)	-	-
Biological Abstracts	12	8
Bioethics Line	2	4
Cancerline	16	15
Catline	4	-
Chemical Abstracts	8	8
Chemline	-	2
Clinical Literature Information	-	2
Clinprot	-	2
Colleague (BRS Saunders)	2	13
Comprehensive Core Medical Library	-	-
Diack Newsletter	-	-
Disease Information	-	-
Drug Information	-	-
Drug Information Fulltext	-	-

(Continued)

Q.3g

Table 2-62 (Continued)

Q.: And again, thinking of specific online databases for the medical sciences, which two or three are most important to you?

Base: Library has access to online computerized databases for the medical sciences

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Electronic Yellow Pages - Professionals Directory	-	-
Embase - Excerpta Medical (EMED)	8	6
ENSDF - Medlist	-	-
Food and Drug Administration Bulletin Board	-	-
Grateful Med	-	-
GRIPS Training File	-	-
Health Audiovisual Online Catalog - Ohio	-	-
Health Benefit Cost Containment Newsletter	-	-
Health Planning and Admin	8	15
Histline	2	-
International Pharmaceutical Abstracts	-	-
IRCS Medical Science	-	-
ISI/Biomed	-	4
Life: Net	-	-
Medical Abstracts Newsletter	-	-
Medical Procedure Coding and Nomenclature	-	-
Medline/Medlars/Index Medicus Online	92	83
Minimedline	2	8

(Continued)

Q.3g

Table 2-62 (Continued)

Q.: And again, thinking of specific online databases for the medical sciences, which two or three are most important to you?

Base: Library has access to online computerized databases for the medical sciences

	Chief Librarians	
	Medical Schools %	Affiliate Hospitals %
Nursing and Allied Health Line	2	6
Paperchase	-	2
PDQ	4	6
PDQ Directory	-	-
Phycom Service	2	13
Pre-med	2	-
Scisearch	6	-
Serline	-	-
Socio-economic Bibliographic Information	-	-
Superindex	2	-
Toxline	20	17
Psychological Abstracts	18	2
Psycinfo	10	-
Biosis	6	-
National Library of Medicine	6	-
Other	28	-
Not sure	2	2
Base	50	48

Q.3f

Table 2-63

Q.: How many of those are specialized for the medical sciences?

Base: Library has access to online computerized databases for the medical sciences

	Chief Librarians	
	Medical Schools %	Affiliate Hospitals %
Less than 10	2	17
At least 10 but less than 15	24	8
At least 15 but less than 20	10	6
At least 20 but less than 25	18	6
At least 25 but less than 30	4	6
At least 30 but less than 35	8	2
At least 35 but less than 40	-	-
At least 40 but less than 45	2	-
At least 45 but less than 50	-	-
50 or more	12	8
Not sure	20	46
Mean number of specialized databases	31	21
Median number of specialized databases	20	14
Mode	at least 10 but less than 21	at least 12 but less than 26
Base	50	48

Q.3e

Table 2-64

Q.: How many different online computerized databases does your library have access to in all?

Base: Library has access to online computerized databases for the medical sciences

	Chief Librarians	
	Medical Schools %	Affiliate Hospitals %
Less than 50	8	15
At least 50 but less than 100	2	6
At least 100 but less than 150	8	4
At least 150 but less than 200	6	-
At least 200 but less than 250	14	15
At least 250 but less than 300	6	2
At least 300 but less than 350	8	4
At least 350 but less than 400	2	-
At least 400 but less than 450	4	-
At least 450 but less than 500	-	-
500 or more	8	10
Not sure	34	44
Mean number of online databases	250	226
Median number of online databases	210	169
Mode	200	200
Base	50	48

Q.4a

Table 2-65

Q.: How comfortable would you be using . . . printed books and journals?

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Very comfortable	89	92	89	93	86
Somewhat comfortable	7	6	10	5	12
Not very comfortable	1	-	-	2	1
Not at all comfortable	-	-	-	-	-
Have never used	-	-	1	-	-
Not sure	3	2	-	-	*
Base	98	102	99	104	201

---

*Less than 0.5%.

Q.4c

Table 2-66

Q.: How comfortable would you be using . . . online computerized databases?

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Very comfortable	44	43	39	31	22
Somewhat comfortable	41	37	40	36	37
Not very comfortable	9	8	8	20	23
Not at all comfortable	1	9	7	7	7
Have never used	2	1	5	7	7
Not sure	3	2	-	-	2
Base	98	102	99	104	201

Q.4b

Table 2-67

Q.: How comfortable would you be using . . . microfilm or microfiche?

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Very comfortable	17	9	32	41	18
Somewhat comfortable	32	35	38	38	34
Not very comfortable	31	26	17	15	26
Not at all comfortable	16	26	9	5	13
Have never used	2	2	3	-	7
Not sure	2	1	-	-	1
Base	98	102	99	104	201

CHAPTER 3: THE INFORMATION EXPLOSION

Dimensions of the Problem

The findings of this study leave little doubt that the broad spectrum of the medical community is aware that an information glut exists. The medical community is in agreement across the board that "the sheer volume of medical data and information today" makes it difficult for both basic scientists and clinicians to keep up with their fields (Tables 3-1 and 3-2). Deans of medical schools are less likely than most of the user groups to agree strongly, while chief librarians at both medical schools and affiliate hospitals are much more likely to do so. (The five accrediting committee members we spoke with are also less inclined to agree strongly.)

Moreover, majorities of all user groups*, of medical school deans, and of librarians deem "lack of space and overcrowded shelves due to the quantity of books, journals, and other printed materials" a problem that is at least "somewhat serious" in their libraries. Chief librarians at medical schools (42%) and affiliate hospitals (54%) are most likely to see this problem as "very serious," while medical students (17%) and deans of medical schools (16%) are least likely to do so (Table 3-3). Storage and retrieval problems are also acknowledged by the majority of all users, deans, and librarians; though the latter two groups (deans: 50%, chief medical school librarians: 56%, chief affiliate hospital librarians: 48%) are more inclined to feel strongly about it (Table 3-4). Again, large majorities of all groups consider "the increasing cost of maintaining a library with acceptable standards" to be at least a somewhat serious problem (Table 3-5). Here, basic science faculty (65%) are just about as likely as medical school (62%) and affiliate hospital (72%) librarians to see this as a very serious problem; medical students (31%) and office-based physicians (31%) are least likely to see it this way.

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*Among office-based physicians, the question was asked only of those who report they have access to a medical library.

Although, as was seen in Chapter 1, there is a broad consensus behind the idea that medical libraries should be judged on their retrieval systems rather than simply on the size of their collections, there is not much of a sense among either the user groups, librarians, or deans that lack of an efficient retrieval system or an emphasis on quantity rather than quality in collections are problems today (Tables 3-6 and 3-7). Medical students, residents, and office-based practitioners show the highest levels of concern, but even among these groups the proportions rating each problem even somewhat serious does not reach the 50% mark.

The five accrediting committee members we spoke with are inclined to see the problems as serious in this order: storage problems, cost of maintaining an acceptable library, and lack of space. More see an emphasis on quantity rather than quality as a problem than see lack of an efficient retrieval system as such.

How To Solve The Problem:
Measures to Increase Efficiency and Cut Costs

If lack of an efficient retrieval system isn't seen as a very important problem, rising costs and overcrowding certainly are. But what measures to cut costs and reduce the volume of collections would the medical community accept?

Of nine measures to increase efficiency and reduce costs, users (including those office-based physicians who have access to a medical library), deans, and librarians would be most willing to accept more sharing of library collections and facilities with other institutions (Table 3-8). Majorities of basic science and clinical faculty, office-based physicians, deans, and chief librarians would be very willing to see this happen, as would large pluralities of medical students and residents.

No other measure would be accepted very willingly by a majority of any group:

-- Substantial percentages of every group, reaching as high as 50% among affiliate hospital librarians, would be very willing to accept limiting the number of archival books available in the library (Table 3-9).

-- Minorities ranging from 40% of deans down to 24% of affiliate hospital librarians would be very willing to accept having some journals and scholarly publications available only in computerized form (Table 3-10).

-- Minorities ranging from 36% of deans to 20% of medical school librarians and basic science faculty would very willingly accept more books and periodicals on microfilm or microfiche instead of in bound volumes (Table 3-11). As reported earlier, many are less comfortable using these media than they are using online systems.

-- Minorities ranging from 36% of deans to a low 13% of basic science faculty would be very willing to limit the number of archival periodicals available in the library (Table 3-12).

-- Minorities ranging from 28% of office-based physicians to 7% of clinical faculty would be very willing to accept an online retrieval system based on statistical analysis of the journals, authors, and papers used most often (Table 3-13).

-- Minorities ranging from 28% of office-based physicians to 4% of affiliate hospital chief librarians would be very willing to accept panels of experts to determine what should be included in online databases (Table 3-14).

-- Minorities ranging from 26% of deans to 8% of medical school chief librarians would be very willing to limit the number of current books and periodicals available in the library (Table 3-15).

-- The least popular idea is having a rule which would restrict access to the library's online databases to information professionals trained in efficient search strategies. Clinical faculty and office-based physicians are the most inclined to go along with this (22% and 21%, respectively, say they'd be very willing); deans and medical students the least so (8% and 9%, respectively) (Table 3-16).

-- The five accrediting committee members we talked to are in accord with users and deans. They favor sharing as the best solution, and are least content with a rule that restricts access.

Quantity, Quality, Relevance

The majorities of all user groups feel that all materials of both potential scholarly interest and potential clinical relevance should all be kept in medical school libraries, even if they are hardly ever used. Office-based physicians are most inclined to agree strongly or somewhat with keeping materials of potential scholarly interest (perhaps because they feel most comfortable with written material and feel that current library stock will not quickly be transferred onto online computerized databases); residents voice the most agreement for keeping materials of potential clinical interest. Deans and chief librarians, possibly because they are more acutely aware of the need to make some concessions, are the least likely to agree that all these materials should be kept; though the chief librarians of medical schools are, on both these issues, more in agreement than their affiliate hospital colleagues (Tables 3-17 and 3-18). But, that having been said, the overwhelming majorities of all user groups and deans and chief librarians do feel that it is time to reevaluate the "publish or perish" ethic and focus on quality instead of quantity in publications (Table 3-19). The five accrediting committee members we spoke with do not think all materials should be kept, and the majority of them agree the "publish or perish" ethic needs reevaluation.

Observation:

While user groups, deans, and chief librarians recognize that, in the light of the "information explosion," some

> changes need to be made regarding types and amounts of information stored, users are noticeably the most uncomfortable in letting go of information that's already on hand. Everyone, including all user groups, agree that the "publish or perish" ethic needs reevaluation, and thus implicitly might be willing to limit the numbers of future publications piling up. Users still prefer to hold on to past and current publications, while deans and librarians are more willing to reexamine past and current as well as future output.

Using Databases and Different Database Formats

Referring back to online computer databases and ways of using them to relieve the information glut, probably no one has any doubt that they are the most efficient to use in terms of both time and money and the amounts and array of information stored in them. Considering the absence of office-based physicians' familiarity with on-line data bases, it is not surprising that 50% of office-based physicians feel that card catalogues are more efficient than online computerized databases (Table 3-20). (Of the five accrediting members we interviewed, four of them disagree that the card catalogue's more efficient; one isn't sure.)

> Observation:
>
> Office-based physicians are sorely out of touch with the advantages of online database technology; as pointed out in Chapter 2, their use of this technology is glaringly limited. It would almost appear that this segment of the medical community is still in horse and buggy days, as far as their information requirements are concerned.

While all user groups say that abstracts of articles are the best way for receiving online information, basic science faculty say they typically use bibliographic citations most often; clinical faculty, medical students, and residents are about equally divided between using citations and abstracts; and office-based physicians tend to use abstracts more (Tables 3-21 and 3-22).

Tables 3-21 and 3-22 reveal some interesting discrepancies between what's considered best and what's actually used. For example, while 50% of basic science faculty say that article abstracts are best and 33% say bibliographic citations are, only 29% of that faculty most often use abstracts, while fully 57% use the citations. The same pattern emerges with medical students: 56% say abstracts are best; 16% opt for citations. But, when it comes to use, only 36% of those same students use the abstracts while 35% use citations. Time and availability constraints may be the reasons why these discrepancies exist. For their part, chief librarians at medical schools prefer abstracts but are far more likely to use citations most often; their counterparts at affiliate hospital libraries are divided as to their preference but even more likely to say they use bibliographic citations most often.

> Observation:
>
> Divergences in preferences in patterns of use of abstracts vis-a-vis citations, are likely to be, in part, a result of the substantial cost difference.

Database Strategies

Different databases allow the use of different kinds of strategies to get at relevant information; in this study, we questioned the medical community on two types. "Index term" or "key word" searches involve using index terms or key words to identify relevant subject material. Other searches are conducted by using the citation of a known article as a starting point. Overwhelming majorities of all users and chief librarians feel that index term or key word strategy is the best for targeting the most relevant and important information in response to their queries (Table 3-23), and index term is cited above citation for being superior in providing all of the information that pertains to users' queries, though about one in ten clinical faculty and both medical school and affiliate hospital chief librarians say "it depends" (Table 3-24). Fully 72% of both medical school and affiliate hospital chief librarians view index term as being more cost-efficient in terms of the dollars spent for online time (Table 3-25).

Comparisons are also made between controlled vocabulary and free text searches. The majority of all user groups and both types of chief librarians feel that controlled vocabulary searches are better for targeting the most relevant information, though sizable portions of users (from 19% to 26%) prefer free text (Table 3-26). But when asked which kind of search is better at providing all of the information that pertains to a query, while controlled vocabulary still captures more support, free text is seen in a better light than it was before. In this case, from 26% to 38% of users say free text is better; 20% of chief medical school librarians and 24% of affiliate hospital chief librarians say "it depends" (Table 3-27). When it comes to cost, however, 84% of chief medical school librarians and 66% of chief affiliate hospital librarians say controlled vocabulary is more cost-efficient (Table 3-28).

Organizing Databases

One of the solutions proposed to the information overload besetting the medical profession today is the exercise of some sort of selectivity of what goes in and what comes out of computerized online databases. On the whole, all groups are squeamish about selective input, but are somewhat more receptive to selective output.

When asked which way of organizing databases would be most useful, inputting all available information but providing selective output is the definite preference of all groups (including the five accrediting committee members we spoke with), with both basic science and clinical faculty and office-based physicians choosing inputting all and outputting all as their second choice. Medical students, residents, deans, and both types of chief librarians choose selective input and total output as their second option (Table 3-29). Complete input with selective output again ranks first when users, deans, chief librarians, and the five accrediting committee members we talked to, consider which organizational method would be most likely to foster creativity and spur scientific investigation. But this time, it is total input with total output that most frequently ranks second; only residents, office- based physicians, and deans prefer selective input and total output (Table 3-30). As to which method would be the most cost-efficient in terms of time and money, selective input with total output is slightly ahead of total input and selective output (Table 3-31). Users and deans prefer the first above-mentioned option; both types of chief librarians and the five accrediting committee members we talked to prefer the second. It is clear, however, that total input and total output is not viewed as being cost-efficient either in terms of time or money.

One way of organizing databases for selective input or output would be to appoint a panel of experts to decide on the importance, quality, and relevance of material to be included. Who would users, deans, and chief librarians want to see choose such a panel of experts who would ultimately make the decisions on what to include and what to exclude? Deans, chief medical school librarians, and chief affiliate hospital librarians -- 52%, 58%, and 68%, respectively -- vote for the National Library of Medicine choosing such a panel. Medical specialty societies' leaders are the first choice of clinical faculty (37%), medical students (32%), residents (41%), and office-based physicians (45%). Only basic science faculty opt for National Institute of Health members (20%), though National Library of Medicine and medical specialty societies' leaders run close behind with 17% each (Table 3-32). (The five accrediting committee members we spoke with are all split on this.)

An alternative suggestion is that decisions on what to include in a database be based on objective, statistical measures. Under such an arrangement, students, office-based physicians, and chief librarians of affiliate hospitals would prefer to see the frequency of use of the article be the decisive factor for selection. Basic science and clinical faculty, residents, deans, and the chief librarians in medical schools would rather that the number of citations that the article has generated in other articles be the main criterion (Table 3-33), as would the majority of the five accrediting committee members we spoke with. "Relevance" or "usefulness" was volunteered by no more than five percent of any users, deans, or librarians.

Observation:

When faced with the question of how computerized databases should be organized, all user groups, deans, and both types of chief librarians clearly prefer that all the articles that are generated in medical journals be stored somewhere and saved; even if final access to them is limited via selective output. They view this as being the most useful as well as being the most likely to foster creativity, even if it may not be the most cost-effective. And if the whole "publish or perish" ethic is reevaluated, it may well be that it is feasible to store all journal articles, due to there being less of them.

Fewer than 30% of any group would be very willing to accept, as a way of increasing efficiency and reducing costs, either an online system based on statistical analysis of which materials are used most often, or a panel of experts to determine what should be included in online databases. But forced to look at the details, the various user groups, deans, and librarians tend to diverge along "party lines". Clinical faculty, office-based physicians, and residents would feel most comfortable with the leadership of the medical specialty societies making the decisions on what is selected and what isn't, while librarians, and deans as well, vote for the National Library of Medicine. And if objective, statistical methods are used, physicians and medical students pragmatically opt for frequency of use as the criterion, while the faculty, in a more scholarly mode, prefer number of citations.

Selection Criteria

When asked about some of the specific criteria that might be used to rank articles as reliable sources of information (Tables 3-34 through 3-41), the relevance of the article to a scientific inquiry or research problem is deemed the most important. Majorities of all users, deans, and chief librarians say this is a very important criterion; their responses range from 58% of medical students saying it's very important to 84% of medical schools' chief librarians deeming it so (Table 3-34).

-- Majorities of all groups except medical students say that the uniqueness of the article or the findings presented is a very important criterion; here, percentages judging it very important range from 74% of medical school chief librarians to 43% of medical students (Table 3-35).

-- The quality of the journal that the article appeared in is seen by slightly less percentages of the medical community as very important. Whereas 68% of chief librarians at medical school libraries say this is a very important criterion, only 44% of their affiliate hospital colleagues agree, as do only 43% of residents and 40% of students. Deans -- 64% -- are in close agreement with medical school librarians (Table 3-36).

-- A significant discrepancy is seen between basic science faculty and most other users as well as deans and both types of chief librarians when the article's relevance to clinical decision making is taken into consideration. Only 27% of basic science faculty say it's a very important criterion; almost a third of them (30%) say it's not very or not at all important. On the other hand, 76% of chief librarians at medical schools say this is a very important criterion; 62% of chief librarians at affiliate hospitals, and 69% of both residents and office-based physicians agree (Table 3-37).

-- The author's prior research achievements are seen as very important by chief librarians at medical schools (50%) and affiliate hospitals (56%) rather than by users; basic science faculty (41%) being an exception. Nearly four out of every ten medical students as well as residents say this is not very or not at all important (Table 3-38).

-- The number of citations the article has generated in other articles is primarily seen more as "somewhat important", however, a third of basic science faculty and about a quarter of clinical faculty, students, and residents think it's not very or not at all important (Table 3-39).

-- The author's academic credentials are also seen more as somewhat important rather than very important, and again, it is basic science faculty that places less importance on this criterion (Table 3-40).

-- And the fact that the author has many prior publications carries more weight with librarians and deans than it does with users. Whereas 82% of affiliate hospital chief librarians, 70% of medical school chief librarians, and 74% of deans say that previous publishing is very or somewhat important, 50% of residents, 47% of medical students, 44% of basic science faculty, and more than a third of both clinical faculty and office-based physicians say it's not (Table 3-41).

-- For the five accrediting committee members we spoke with, the article's uniqueness ranks first, followed by the number of citations it's generated, and the author's academic credentials. They see the article's relevance to clinical decision making as the least important criterion.

Observation:

The ability of an article to shed light on scientific inquiries or research is seen as the most important criteria by which to determine how to rank the article as a reliable source of information. On that, all user groups and deans and librarians are in agreement.

Interesting data emerge when the medical community is asked to reconsider the same eight criteria mentioned above in terms of whether they would favor or oppose using them as selection criteria for online database input as well as retrieval. Tables 3-42 through 3-57 show their responses.

-- As seen with criteria used to rank articles, once again the relevance of the article to a scientific inquiry or research problem holds the most weight, this time for both input as well as retrieval. Deans are the most in favor of using this as a criterion; basic science faculty the least so. But overwhelming majorities of all groups are definitely in favor (Table 3-42).

- Overwhelming majorities also favor using the uniqueness of the article or the findings presented as a criterion for both input and retrieval; deans are again among the most in favor (Table 3-43).

- The quality of the journal that the article appeared in is seen by all user groups as well as deans and chief librarians as being a favorable criterion on which to judge an article for input, but basic science faculty and chief librarians at affiliate hospitals are almost evenly split in their decisions (one out of five basic science faculty, however, isn't sure). Eighteen percent of deans express opposition to using this as a retrieval criterion (Table 3-44).

- Basic science faculty opposes, by a five percent margin, using the number of citations the article has generated in other articles as a criterion; other users and deans and librarians are generally in favor. All users (including the basic science faculty) and deans and librarians see this as a valid method of determining retrieval (Table 3-45).

- Users, with the exception of office-based physicians, oppose the input selection being based upon the relevance of the article to clinical decision making. Deans and both types of chief librarians strongly favor it (Table 3-46). Everyone favors it as a method of deciding what is retrieved (Table 3-50).

- How much weight do the prior research achievements of the author carry? When it comes to input selection, users (again, office-based physicians answer apart from the others) oppose giving this criterion a lot of pull; affiliate hospitals' chief librarians concur. But office-based physicians, deans, and the chief librarians at medical schools favor using this for deciding input (Table 3-47). The same holds true when considering this criterion for retrieval selection. Users, minus office-based physicians, and affiliate hospitals' chief librarians oppose it; deans and medical schools' chief librarians favor it. Here, affiliate hospital chief librarians are clear in their opposition: 66% say prior research achievements should not be a criterion; as compared to the 52% of deans and 56% of medical school librarians who say it should be (Table 3-55).

- When considering input selection criteria, the author's academic credentials pull more weight with office-based physicians, deans, and both librarian groups than do they with the other user groups. The aforementioned favor it; the latter are in opposition (Table 3-48). As far as using this criterion for deciding retrieval strategies, deans still favor it, but now medical school chief librarians are split 46%-46% and affiliate hospital chief librarians are against it by a two-to-one margin. Basic science and clinical faculty, medical students, and residents still oppose using the academic credentials as a criterion (Table 3-56).

-- But when it comes to the fact that the author has many prior publications, an interesting switch occurs. It will be recalled that whereas deans and both types of chief librarians thought this was a very or somewhat important criterion to use as a source for ranking articles (refer back to Table 3-41) those same groups are now saying that they oppose its being used as a criterion for both input decisionmaking as well as retrieval deciding. While all user groups oppose this criterion being used for deciding input, they favor its being used for retrieval selection. This is in direct contrast to the responses of deans and chief librarians (Table 3-57).

Observation:

If the groups surveyed in this study had to choose criteria for selecting articles for input into and retrieval from online databases for the medical sciences, they would, by and large, go for relevance of the article to ongoing scientific inquiry; uniqueness of the article or findings; and quality of the journal the article appeared in. (In comparison, the quality of the journal which the article appeared in and the number of citations it has generated in other articles are the most important criteria for the five accrediting committee members that we talked to.) Users, deans, and librarians alike would want to judge scholarly articles firstly on their merits and secondly, perhaps, on the credibility of the publication it appears in. Factors having to do with the author, his or her credentials or prior publications, are of much less importance, especially to academics themselves who may even be alarmed at the prospect of still further evaluations of their work by committee or so-called "objective" evaluation.

Optical Distributed Databases

Distributed databases issued in the form of optical discs or CD's sound very attractive to the majority of everyone surveyed. Approximately seven out of ten users say they'd be very or at least somewhat likely to use an optical distributed database; office-based physicians are a little less likely than the other users, but even 67% of them say they'd probably use the discs

(Table 3-58). And those who say they're very or somewhat likely to use the distributed database are highly likely to be willing to access it themselves, without having a librarian or trained specialist do it for them. Again, office-based physicians voice a little reluctance, but still 77% of them say they'd do it themselves. On the other hand, 20% of them say they'd be not very or not at all willing to access by themselves; 16% of clinical faculty agree (Table 3-59).

Q.1a

Table 3-1

Q.: There has been much discussion recently about the so-called "information explosion," the impact it may be having on many fields today -- especially the medical sciences -- and how the challenges it poses might be faced. Do you agree or disagree with the following statement?. . . The sheer volume of medical data and information available today makes it difficult for basic scientists to stay current with what's happening in their fields.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Agree strongly	47	44	31	44	39	26	60	64
Agree somewhat	39	31	47	39	44	60	26	24
Disagree somewhat	9	16	17	13	11	14	12	4
Disagree strongly	3	5	4	2	3	-	-	8
Not sure	2	4	-	2	2	-	2	-
Base	98	102	99	104	201	50	50	50

Q.1b

Table 3-2

Q.: There has been much discussion recently about the so-called "information explosion," the impact it may be having on many fields today -- especially the medical sciences -- and how the challenges it poses might be faced. Do you agree or disagree with the following statement?. . . The sheer volume of medical data and information available today makes it difficult for clinicians to stay current with what's happening in their fields.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Agree strongly	46	55	38	39	42	36	66	68
Agree somewhat	39	29	47	50	45	54	28	18
Disagree somewhat	1	11	12	10	9	10	4	6
Disagree strongly	1	2	1	1	3	-	-	6
Not sure	13	3	1	-	-	-	2	2
Base	98	102	99	104	201	50	50	50

Q.6c

Table 3-3

Q.: I'd like to describe for you some problems that may confront some medical libraries and the scientists, students, and physicians who use them. Please tell me how serious you personally think each problem is at the libraries you use? . . . lack of space and overcrowded shelves due to the quantity of books, journals, and other printed materials.

Base: Users -- have access to a medical library

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very serious	26	23	17	21	24	16	42	54
Somewhat serious	33	39	34	38	28	46	30	22
Not very serious	30	14	33	27	29	14	8	10
Not at all serious	10	23	15	12	17	24	20	14
Depends	-	-	-	-	-	-	-	-
Not sure	2	2	-	2	2	-	-	-
Base	98	102	99	104	191	50	50	50

Q.11

Table 3-4

Q.: There has been much discussion recently about the so-called "information explosion," the impact it may be having on many fields today -- especially the medical sciences -- and how the challenges it poses might be faced. Do you agree or disagree with the following statement?. . . The glut of information in the medical sciences presents serious problems unless we develop different systems of storage and retrieval.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Agree strongly	43	36	27	31	45	50	56	48
Agree somewhat	36	41	54	57	43	42	34	30
Disagree somewhat	12	16	18	11	7	6	8	18
Disagree strongly	1	3	1	2	4	-	-	2
Not sure	8	4	-	-	*	2	2	2
Base	98	102	99	104	201	50	50	50

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*Less than 0.5%.

Q.6c

Table 3-5

Q.: I'd like to describe for you some problems that may confront some medical libraries and the scientists, students, and physicians who use them. Please tell me how serious you personally think each problem is at the libraries you use? . . . The increasing cost of maintaining a library with acceptable standards.

Base: Users -- have access to a medical library

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very serious	65	42	31	40	31	52	62	72
Somewhat serious	20	30	39	37	34	44	30	14
Not very serious	2	4	20	10	17	2	4	6
Not at all serious	2	7	2	5	9	2	4	8
Depends	-	-	-	-	-	-	-	-
Not sure	10	17	7	9	8	-	-	-
Base	98	102	99	104	191	50	50	50

Q.6c

Table 3-6

Q.: I'd like to describe for you some problems that may confront some medical libraries and the scientists, students, and physicians who use them. Please tell me how serious you personally think each problem is at the libraries you use? . . . The lack of an efficient system for retrieving the most appropriate publications on a topic.

Base: Users - have access to a medical library

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very serious	4	7	15	19	12	2	10	8
Somewhat serious	21	20	29	29	24	18	26	24
Not very serious	36	28	43	40	38	40	28	34
Not at all serious	36	44	12	10	25	38	36	32
Depends	-	-	-	-	-	-	-	-
Not sure	3	1	-	2	2	2	-	2
Base	98	102	99	104	191	50	50	50

Q.6c

Table 3-7

Q.: I'd like to describe for you some problems that may confront some medical libraries and the scientists, students, and physicians who use them. Please tell me how serious you personally think each problem is at the libraries you use? . . . An emphasis on quantity rather than quality in building collections.

Base: Users - have access to a medical library.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very serious	6	12	10	9	10	8	6	4
Somewhat serious	23	15	29	31	27	20	20	14
Not very serious	40	33	51	49	42	48	36	40
Not at all serious	24	37	10	10	18	24	38	42
Depends	-	-	-	-	-	-	-	-
Not sure	6	3	-	2	2	-	-	-
Base	98	102	99	104	191	50	50	50

Q.6d

Table 3-8

Q.: If it were demonstrated that by doing so medical libraries could manage their collections and information systems more efficiently and at less expense, how willing would you be to accept . . . more sharing of library collections and facilities with other institutions?

Base: Users - have access to a medical library.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very willing	59	58	48	44	60	80	62	78
Somewhat willing	21	24	31	34	31	14	26	12
Not very willing	10	12	16	18	6	2	4	-
Not at all willing	2	6	3	2	1	-	2	-
Already have	5	1	-	1	1	4	6	8
Not sure	2	-	1	1	1	-	-	2
Base	98	102	99	104	191	50	50	50

Q.6d

Table 3-9

Q.: If it were demonstrated that by doing so medical libraries could manage their collections and information systems more efficiently and at less expense, how willing would you be to accept . . . limiting the number of archival books -- such as previous editions of textbooks -- available in the library?

Base: Users - have access to a medical library.

	Users						Chief Librarians	
	Teaching/Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very willing	43	44	42	43	44	46	40	50
Somewhat willing	38	38	37	41	35	38	38	26
Not very willing	11	11	15	11	9	4	8	4
Not at all willing	6	6	5	4	12	10	12	14
Already have	1	-	-	-	-	-	-	4
Not sure	1	1	-	1	-	2	2	2
Base	98	102	99	104	191	50	50	50

Q.6d

Table 3-10

Q.: If it were demonstrated that by doing so medical libraries could manage their collections and information systems more efficiently and at less expense, how willing would you be to accept . . . the availability of some journals and scholarly publications only in computerized form?

Base: Users - have access to a medical library.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very willing	32	26	30	28	39	40	38	24
Somewhat willing	37	37	45	52	34	48	38	38
Not very willing	16	25	19	13	17	6	14	16
Not at all willing	11	12	3	2	8	4	6	14
Already have	-	-	-	-	-	2	-	-
Not sure	4	-	2	6	2	-	4	8
Base	98	102	99	104	191	50	50	50

Q.6d

Table 3-11

Q.: If it were demonstrated that by doing so medical libraries could manage their collections and information systems more efficiently and at less expense, how willing would you be to accept . . . more books and periodicals available on microfilm or microfiche instead of in bound volumes?

Base: Users - have access to a medical library.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very willing	20	25	33	31	29	36	20	30
Somewhat willing	42	28	37	42	35	40	32	24
Not very willing	22	23	20	22	21	22	26	12
Not at all willing	13	25	8	3	11	2	20	26
Already have	-	-	-	-	-	-	2	2
Not sure	2	-	1	2	3	-	-	6
Base	98	102	99	104	191	50	50	50

Q.6d

Table 3-12

Q.: If it were demonstrated that by doing so medical libraries could manage their collections and information systems more efficiently and at less expense, how willing would you be to accept . . . limiting the number of archival periodicals available in the library?

Base: Users - have access to a medical library.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very willing	13	22	14	20	29	36	18	40
Somewhat willing	36	33	43	42	46	38	44	34
Not very willing	32	28	28	23	15	6	20	14
Not at all willing	18	16	14	13	10	16	14	6
Already have	-	-	-	-	-	2	2	2
Not sure	1	1	-	1	-	2	2	4
Base	98	102	99	104	191	50	50	50

Q.6d

Table 3-13

Q.: If it were demonstrated that by doing so medical libraries could manage their collections and information systems more efficiently and at less expense, how willing would you be to accept . . . an online retrieval system based on statistical analysis of which journals, authors, and papers are most often used?

Base: Users - have access to a medical library.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very willing	10	7	16	15	28	16	14	26
Somewhat willing	16	27	36	41	41	48	42	18
Not very willing	24	24	30	30	13	26	24	8
Not at all willing	46	40	16	13	16	8	16	34
Already have	1	-	-	-	-	-	-	4
Not sure	2	2	1	1	3	2	4	10
Base	98	102	99	104	191	50	50	50

Q.6d

Table 3-14

Q.: If it were demonstrated that by doing so medical libraries could manage their collections and information systems more efficiently and at less expense, how willing would you be to accept . . . panels of experts to determine what should or should not be included in online databases rather than including all publications?

Base: Users - have access to a medical library.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very willing	16	13	9	16	28	24	26	4
Somewhat willing	26	27	39	39	36	44	44	36
Not very willing	22	24	31	25	14	18	8	12
Not at all willing	33	34	18	17	19	8	18	40
Already have	-	-	-	-	-	-	-	2
Not sure	3	2	2	2	3	6	4	6
Base	98	102	99	104	191	50	50	50

Q.6d

Table 3-15

Q.: If it were demonstrated that by doing so medical libraries could manage their collections and information systems more efficiently and at less expense, how willing would you be to accept . . . limiting the number of current books and periodicals available in the library?

Base: Users - have access to a medical library.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very willing	11	14	12	11	21	26	8	20
Somewhat willing	40	31	36	33	42	50	26	20
Not very willing	28	30	35	39	19	10	40	14
Not at all willing	16	24	16	15	16	10	22	36
Already have	1	1	-	-	1	2	2	2
Not sure	4	-	-	2	2	2	2	8
Base	98	102	99	104	191	50	50	50

Q.6d

Table 3-16

Q.: If it were demonstrated that by doing so medical libraries could manage their collections and information systems more efficiently and at less expense, how willing would you be to accept . . . a rule restricting access to the library's online databases to information professionals trained in efficient search strategies?

Base: Users - have access to a medical library.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very willing	18	22	9	15	21	8	16	16
Somewhat willing	20	22	35	30	34	32	16	30
Not very willing	27	17	36	36	21	24	30	10
Not at all willing	28	33	16	18	19	34	38	30
Already have	1	2	1	-	-	-	-	6
Not sure	6	5	2	1	4	2	-	8
Base	98	102	99	104	191	50	50	50

Q.6d

SUMMARY TABLE "3-A" MEASURES BASIC FACULTY WOULD BE WILLING TO ACCEPT

Base: Basic science teaching/research scientists
who have access to a medical library

Base: 98	Willing* %	Not Willing* %	Already Have %	Not Sure %
1. Limiting the number of current books and periodicals available in the library	51	44	1	4
2. Limiting the number of archival books -- such as previous editions of textbooks -- available in the library	81	17	1	1
3. Limiting the number of archival periodicals available in the library	49	50	-	1
4. More books and periodicals available on microfilm or microfiche instead of in bound volumes	62	35	-	2
5. More sharing of library collections and facilities	80	12	5	2
6. The availability of some journals and scholarly publications only in computerized form	69	27	-	4
7. A rule restricting access to the library's online databases to information professionals trained in efficient search strategies	38	55	1	6
8. Panels of experts to determine what should or should not be included in the online databases rather than including all publications	42	55	-	3
9. An online retrieval system based on statistical analysis of which journals, authors, and papers are most often used	26	70	1	2

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*Willing = "Very willing" and "somewhat willing."
Not willing = "Not very willing" and "not at all willing."

Q.6d

SUMMARY TABLE "3-B"
MEASURES CLINICAL FACULTY WOULD BE WILLING TO ACCEPT

Base: Clinical teaching/research scientists
who have access to a medical library

Base: 102	Willing*	Not Willing*	Already Have	Not Sure
	%	%	%	%
1. Limiting the number of current books and periodicals available in the library	45	54	1	-
2. Limiting the number of archival books -- such as previous editions of textbooks -- available in the library	82	17	-	1
3. Limiting the number of archival periodicals available in the library	55	44	-	1
4. More books and periodicals available on microfilm or microfiche instead of in bound volumes	53	48	-	-
5. More sharing of library collections and facilities	82	18	1	-
6. The availability of some journals and scholarly publications only in computerized form	63	37	-	-
7. A rule restricting access to the library's online databases to information professionals trained in efficient search strategies	44	50	2	5
8. Panels of experts to determine what should or should not be included in the online databases rather than including all publications	40	58	-	2
9. An online retrieval system based on statistical analysis of which journals, authors, and papers are most often used	34	64	-	2

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*Willing = "Very willing" and "somewhat willing."
Not willing = "Not very willing" and "not at all willing."

Q.6d

SUMMARY TABLE "3-C"
MEASURES MEDICAL STUDENTS WOULD BE WILLING TO ACCEPT

Base: Medical students who have access to a medical library

	Willing*	Not Willing*	Already Have	Not Sure
Base: 99	%	%	%	%
1. Limiting the number of current books and periodicals available in the library	48	51	-	-
2. Limiting the number of archival books -- such as previous editions of textbooks -- available in the library	79	20	-	-
3. Limiting the number of archival periodicals available in the library	57	42	-	-
4. More books and periodicals available on microfilm or microfiche instead of in bound volumes	70	28	-	1
5. More sharing of library collections and facilities	79	19	-	1
6. The availability of some journals and scholarly publications only in computerized form	75	22	-	2
7. A rule restricting access to the library's online databases to information professionals trained in efficient search strategies	44	52	1	2
8. Panels of experts to determine what should or should not be included in the online databases rather than including all publications	48	49	-	2
9. An online retrieval system based on statistical analysis of which journals, authors, and papers are most often used	52	46	-	1

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*Willing = "Very willing" and "somewhat willing."
Not willing = "Not very willing" and "not at all willing."

Q.6d

SUMMARY TABLE "3-D"
MEASURES RESIDENTS WOULD BE WILLING TO ACCEPT

Base: Residents who have access to a medical library

	Willing*	Not Willing*	Already Have	Not Sure
Base: 104	%	%	%	%
1. Limiting the number of current books and periodicals available in the library	44	54	-	2
2. Limiting the number of archival books -- such as previous editions of textbooks -- available in the library	84	15	-	1
3. Limiting the number of archival periodicals available in the library	62	36	-	1
4. More books and periodicals available on microfilm or microfiche instead of in bound volumes	73	25	-	2
5. More sharing of library collections and facilities	78	20	1	1
6. The availability of some journals and scholarly publications only in computerized form	80	15	-	6
7. A rule restricting access to the library's online databases to information professionals trained in efficient search strategies	45	54	-	1
8. Panels of experts to determine what should or should not be included in the online databases rather than including all publications	55	42	-	2
9. An online retrieval system based on statistical analysis of which journals, authors, and papers are most often used	56	43	-	1

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*Willing = "Very willing" and "somewhat willing."
Not willing = "Not very willing" and "not at all willing."

Q.6d

SUMMARY TABLE "3-E"
MEASURES OFFICE-BASED PHYSICIANS WOULD BE WILLING TO ACCEPT

Base: Office-based physicians who have access
to a medical library

Base: 191	Willing*	Not Willing*	Already Have	Not Sure
	%	%	%	%
1. Limiting the number of current books and periodicals available in the library	63	35	1	2
2. Limiting the number of archival books -- such as previous editions of textbooks -- available in the library	79	17	-	-
3. Limiting the number of archival periodicals available in the library	75	25	-	-
4. More books and periodicals available on microfilm or microfiche instead of in bound volumes	64	32	-	3
5. More sharing of library collections and facilities	91	7	1	1
6. The availability of some journals and scholarly publications only in computerized form	73	25	-	2
7. A rule restricting access to the library's online databases to information professionals trained in efficient search strategies	55	40	-	4
8. Panels of experts to determine what should or should not be included in the online databases rather than including all publications	64	33	-	3
9. An online retrieval system based on statistical analysis of which journals, authors, and papers are most often used	69	29	-	3

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*Willing = "Very willing" and "somewhat willing."
Not willing = "Not very willing" and "not at all willing."

Q.6d

SUMMARY TABLE "3-F"
MEASURES DEANS WOULD BE WILLING TO ACCEPT

Base: Deans who have access to a medical library

	Willing*	Not Willing*	Already Have	Not Sure
Base: 50	%	%	%	%
1. Limiting the number of current books and periodicals available in the library	76	20	2	2
2. Limiting the number of archival books -- such as previous editions of textbooks -- available in the library	84	14	-	2
3. Limiting the number of archival periodicals available in the library	74	22	2	2
4. More books and periodicals available on microfilm or microfiche instead of in bound volumes	76	24	-	-
5. More sharing of library collections and facilities	94	2	4	-
6. The availability of some journals and scholarly publications only in computerized form	88	10	2	-
7. A rule restricting access to the library's online databases to information professionals trained in efficient search strategies	40	58	-	2
8. Panels of experts to determine what should or should not be included in the online databases rather than including all publications	68	26	-	6
9. An online retrieval system based on statistical analysis of which journals, authors, and papers are most often used	64	34	-	2

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*Willing = "Very willing" and "somewhat willing."
Not willing = "Not very willing" and "not at all willing."

Q.6d

SUMMARY TABLE "3-G"
MEASURES MEDICAL SCHOOL CHIEF LIBRARIANS WOULD BE WILLING TO ACCEPT

Base: Medical school chief librarians who
have access to a medical library

	Willing*	Not Willing*	Already Have	Not Sure
Base: 50	%	%	%	%
1. Limiting the number of current books and periodicals available in the library	34	62	2	2
2. Limiting the number of archival books -- such as previous editions of textbooks -- available in the library	78	20	-	2
3. Limiting the number of archival periodicals available in the library	62	34	2	2
4. More books and periodicals available on microfilm or microfiche instead of in bound volumes	52	46	2	-
5. More sharing of library collections and facilities	88	6	6	-
6. The availability of some journals and scholarly publications only in computerized form	76	20	-	4
7. A rule restricting access to the library's online databases to information professionals trained in efficient search strategies	32	68	-	-
8. Panels of experts to determine what should or should not be included in the online databases rather than including all publications	70	26	-	4
9. An online retrieval system based on statistical analysis of which journals, authors, and papers are most often used	56	40	-	4

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*Willing = "Very willing" and "somewhat willing."
Not willing = "Not very willing" and "not at all willing."

Q.6d

SUMMARY TABLE "3-H"
MEASURES AFFILIATE HOSPITAL CHIEF LIBRARIANS WOULD BE WILLING TO ACCEPT

Base: Affiliate hospital chief librarians
who have access to a medical library

	Willing*	Not Willing*	Already Have	Not Sure
Base: 50	%	%	%	%
1. Limiting the number of current books and periodicals available in the library	40	50	2	8
2. Limiting the number of archival books -- such as previous editions of textbooks -- available in the library	76	28	4	2
3. Limiting the number of archival periodicals available in the library	74	20	2	4
4. More books and periodicals available on microfilm or microfiche instead of in bound volumes	54	38	2	6
5. More sharing of library collections and facilities	90	-	8	2
6. The availability of some journals and scholarly publications only in computerized form	62	30	-	8
7. A rule restricting access to the library's online databases to information professionals trained in efficient search strategies	46	40	6	8
8. Panels of experts to determine what should or should not be included in the online databases rather than including all publications	40	52	2	6
9. An online retrieval system based on statistical analysis of which journals, authors, and papers are most often used	44	42	4	10

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*Willing = "Very willing" and "somewhat willing."
Not willing = "Not very willing" and "not at all willing."

Q.1j

Table 3-17

Q.: There has been much discussion recently about the so-called "information explosion," the impact it may be having on many fields today -- especially the medical sciences -- and how the challenges it poses might be faced. Do you agree or disagree with the following statement? . . . medical school libraries should keep all materials of potential scholarly interest even if they are hardly ever used.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Agree strongly	26	33	17	23	32	12	12	24
Agree somewhat	36	32	46	39	39	32	40	12
Disagree somewhat	23	23	29	32	25	32	24	36
Disagree strongly	13	11	5	4	4	24	20	26
Not sure	2	1	2	2	-	-	4	2
Base	98	102	99	104	201	50	50	50

Q.1k

Table 3-18

Q.: There has been much discussion recently about the so-called "information explosion," the impact it may be having on many fields today -- especially the medical sciences -- and how the challenges it poses might be faced. Do you agree or disagree with the following statement? . . . medical school libraries should keep all materials of potential clinical relevance even if they are hardly ever used.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Agree strongly	19	25	30	31	33	8	12	24
Agree somewhat	37	38	44	49	38	34	44	26
Disagree somewhat	26	25	22	16	25	30	22	30
Disagree strongly	12	11	3	3	3	26	18	18
Not sure	6	1	-	1	*	2	4	2
Base	98	102	99	104	201	50	50	50

---

*Less than 0.5%.

Q.1h

Table 3-19

Q.: There has been much discussion recently about the so-called "information explosion," the impact it may be having on many fields today -- especially the medical sciences -- and how the challenges it poses might be faced. Do you agree or disagree with the following statement? . . . with the "information explosion" multiplying exponentially the number of new books and articles in the medical sciences, it is time to reevaluate the "publish or perish" ethic and focus on quality instead of quantity in publications.

	Users						Chief Librarians	
	Teaching/Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Agree strongly	74	73	57	71	73	56	76	84
Agree somewhat	15	20	36	22	24	32	22	16
Disagree somewhat	4	4	7	5	2	8	2	-
Disagree strongly	1	2	-	1	1	2	-	-
Not sure	5	2	-	1	*	2	-	-
Base	98	102	99	104	201	50	50	50

---

*Less than 0.5%.

Q.1e

Table 3-20

Q.: There has been much discussion recently about the so-called "information explosion," the impact it may be having on many fields today -- especially the medical sciences -- and how the challenges it poses might be faced. Do you agree or disagree with the following statement? . . . online computerized databases may be a big help in indexing and in retrieving specific information, but in many ways the printed index or card catalogue is still a more efficient tool.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Agree strongly	11	7	8	13	15	4	8	6
Agree somewhat	24	22	27	32	35	22	22	20
Disagree somewhat	40	49	54	37	34	50	30	18
Disagree strongly	17	16	9	15	12	22	38	50
Not sure	7	7	2	4	3	2	2	6
Base	98	102	99	104	201	50	50	50

Q.7a

Table 3-21

Q.: I'd like to ask you about online computerized databases in more detail. Which format do you think is best for receiving online information -- bibliographic citations, abstracts, or the full texts of articles relevant to your request for information?

	Users						
	Teaching/Research Scientist					Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%
Bibliographic citations	33	25	16	14	9	22	44
Abstracts of articles	50	54	56	60	57	48	36
Full texts of articles	9	6	18	20	16	8	18
Other	-	-	-	-	-	2	-
Depends	5	10	1	1	6	14	2
Doesn't matter	1	-	1	-	*	2	-
Not sure	2	5	8	5	11	4	-
Base	98	102	99	104	201	50	50

---

*Less than 0.5%.

Q.7b

Table 3-22

Q.: And which format do you typically use most often?

	Users						
	Teaching/Research Scientist					Chief Librarians	
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %	Medical Schools %	Affiliate Hospitals %
Bibliographic citations	57	41	35	34	20	66	84
Abstracts of articles	29	39	36	36	39	26	14
Full texts of articles	5	5	13	13	17	4	-
Other	-	-	-	1	1	-	-
Does not use	3	5	11	10	16	-	2
Depends	3	7	2	1	2	2	-
Doesn't matter	1	-	-	-	*	-	-
Not sure	2	3	2	6	4	2	-
Base	98	102	99	104	201	50	50

---

*Less than 0.5%.

Q.8a

Table 3-23

Q.: As you may know, the efficient use of online databases involves strategies to get at relevant information. Different databases allow the use of different kinds of strategies. Which approach -- index term or citation -- do you feel is better for targeting the most relevant and important information in response to your query?

	Users						
	Teaching/Research Scientist					Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%
Index term or key word	77	63	74	83	77	80	88
Citation	11	20	21	9	15	8	2
Depends	8	9	3	3	2	6	10
Not sure	4	9	2	6	6	6	-
Base	98	102	99	104	201	50	50

Q.8b

Table 3-24

Q.: And which approach -- index term or citation -- do you think is better at providing all of the information that pertains to your query?

	Users						
	Teaching/Research Scientist					Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%
Index term	77	62	77	81	69	78	82
Citation	8	16	18	11	18	6	2
Depends	7	10	-	1	1	10	12
Not sure	8	13	5	8	11	6	4
Base	98	102	99	104	201	50	50

Q.7c

Table 3-25

Q.: And which approach -- index term or citation -- do you think would tend to be more cost-efficient in terms of the dollars spent for online time?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Index term or key word	72	72
Citation	10	18
Depends	8	10
Not sure	10	-
Base	50	50

Q.9a

Table 3-26

Q.: Which kind of search -- controlled vocabulary or free text -- do you feel is better for targeting the most relevant and important information in response to your query?

	Users					Chief Librarians	
	Teaching/Research Scientist						
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%
Controlled vocabulary	59	61	71	73	62	70	64
Free text	26	19	26	20	23	12	12
Depends	3	4	-	-	1	16	20
Not sure	12	17	3	7	13	2	4
Base	98	102	99	104	201	50	50

Q.9b

Table 3-27

Q.: Which kind of search -- controlled vocabulary or free text -- do you think is better at providing all of the information that pertains to your query?

	Users						
	Teaching/Research Scientist					Chief Librarians	
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %	Medical Schools %	Affiliate Hospitals %
Controlled vocabulary	51	46	63	58	51	58	64
Free text	33	26	31	38	31	20	8
Depends	7	7	1	-	1	20	24
Not sure	9	21	5	5	16	2	4
Base	98	102	99	104	201	50	50

Q.8c

Table 3-28

Q.: Which kind of search -- controlled vocabulary or free text -- do you think would tend to be more cost-efficient in terms of the dollar spent for online item?

	Chief Librarians	
	Medical Schools	Affiliate Hospitals
	%	%
Controlled vocabulary	84	66
Free text	4	14
Depends	6	14
Not sure	6	6
Base	50	50

Q.10a

Table 3-29

Q.: Which of these three different ways of organizing a database would be most useful?

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
1st way: input all/ output all	22	18	9	13	21	12	12	16
2nd way: selective input/output all	6	13	17	21	20	30	16	20
3rd way: input all/ selective output	68	65	72	65	57	58	72	64
Not sure	3	5	2	1	2	-	-	-
Base	98	102	99	104	201	50	50	50

Q.10b

Table 3-30

Q.: Which would be most likely to foster creativity and spur scientific investigation?

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
1st way: input all/ output all	27	25	26	18	24	16	26	26
2nd way: selective input/output all	10	16	19	24	25	32	16	22
3rd way: input all/ selective output	52	48	53	53	46	52	56	48
Not sure	11	12	2	5	4	-	2	4
Base	98	102	99	104	201	50	50	50

Q.10c

Table 3-31

Q.: Which would be most cost-efficient in terms of time and money?

	Users						Chief Librarians	
	Teaching/Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
1st way: input all/ output all	18	19	16	19	25	14	14	16
2nd way: selective input/output all	37	33	45	46	34	54	40	38
3rd way: input all/ selective output	32	29	36	32	32	26	46	44
Not sure	13	19	2	3	8	6	-	2
Base	98	102	99	104	201	50	50	50

Q.11a

Table 3-32

Q.: If databases were organized for selective input or output, it has been suggested that decisions on the importance, quality, and relevance of material to be included be made by a panel of experts in each medical field or specialty. Who would you want to see choose such a panel of experts?

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
AMA	2	6	26	19	24	20	18	26
NIH	20	21	29	13	11	18	32	32
National Library of Medicine	17	23	21	23	12	52	58	68
Foundations	1	4	3	1	6	2	6	12
Medical specialty societies leadership	17	37	32	41	45	20	38	46
Medical specialty societies membership	9	13	23	28	28	18	12	26
Scientific societies leadership	16	9	7	4	7	12	14	16
Scientific societies membership	11	8	2	1	4	10	2	14
Other	5	1	1	-	2	10	2	-
None	18	15	1	1	6	8	4	6
Not sure	5	4	1	1	2	2	4	8
Base	98	102	99	104	201	50	50	50

Q.11b

Table 3-33

Q.: It has also been suggested that decisions as to which articles are included in a selective input or output scheme be based on objective, statistical measures. If that were to be done, would you prefer to see selection based on frequency of use of the article, on the number of citations it has generated in other articles, or on some other criterion?

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Frequency of use	12	17	38	30	39	32	40	30
Number of citations	30	35	28	40	25	42	48	24
Quality of article/ material	3	5	4	7	2	4	-	2
Relevance/usefulness	1	1	2	4	5	2	-	4
Judged by specialists/ panel/peers	4	1	3	3	1	2	4	-
None/no selection process	6	4	-	-	*	-	-	-
All articles/material should be included	2	1	1	1	1	-	-	-
Other	10	11	3	10	12	12	10	14
Not sure	36	31	22	15	19	20	22	28
Base	98	102	99	104	201	50	50	50

---

*Less than 0.5%.

Q.12a

Table 3-34

Q.: I'd like to ask you about some of the specific criteria that might be used to rank articles as reliable sources of information. How important to you is/are . . . the relevance of the article to a scientific inquiry or research problem?

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very important	69	77	58	73	61	74	84	64
Somewhat important	21	15	37	22	33	22	12	22
Not very important	2	-	3	5	2	4	2	6
Not at all important	2	2	1	-	1	-	-	2
Not sure	5	6	1	-	2	-	2	6
Base	98	102	99	104	201	50	50	50

Q.12a

Table 3-35

Q.: I'd like to ask you about some of the specific criteria that might be used to rank articles as reliable sources of information. How important to you is/are . . . the uniqueness of the article or the findings presented?

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very important	63	62	43	54	57	66	74	66
Somewhat important	28	30	42	37	36	28	20	22
Not very important	1	4	10	9	5	4	2	4
Not at all important	4	1	3	1	1	-	2	4
Not sure	4	3	1	-	*	2	2	4
Base	98	102	99	104	201	50	50	50

---

*Less than 0.5%.

Q.12a

Table 3-36

Q.: I'd like to ask you about some of the specific criteria that might be used to rank articles as reliable sources of information. How important to you is/are . . . the quality of the journal the article appeared in?

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very important	60	61	40	43	56	64	68	44
Somewhat important	31	33	42	48	36	34	30	46
Not very important	5	5	10	5	6	-	-	4
Not at all important	3	1	6	4	*	-	-	2
Not sure	1	-	1	-	1	2	2	4
Base	98	102	99	104	201	50	50	50

---

*Less than 0.5%.

Q.12a

Table 3-37

Q.: I'd like to ask you about some of the specific criteria that might be used to rank articles as reliable sources of information. How important to you is/are . . . the relevance of the article to clinical decisionmaking?

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very important	27	43	55	69	69	52	76	62
Somewhat important	29	32	35	28	26	40	18	22
Not very important	15	12	5	3	2	6	-	6
Not at all important	15	6	3	-	1	2	-	4
Not sure	14	7	2	-	1	-	6	6
Base	98	102	99	104	201	50	50	50

Q.12a

Table 3-38

Q.: I'd like to ask you about some of the specific criteria that might be used to rank articles as reliable sources of information. How important to you is/are . . . the prior research achievements of the author?

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very important	41	29	13	11	24	26	50	56
Somewhat important	41	50	46	51	55	62	42	32
Not very important	9	15	31	30	16	10	6	6
Not at all important	8	6	8	9	3	2	-	4
Not sure	1	-	1	-	1	-	2	2
Base	98	102	99	104	201	50	50	50

Q.12a

Table 3-39

Q.: I'd like to ask you about some of the specific criteria that might be used to rank articles as reliable sources of information. How important to you is/are . . . the number of citations the article has generated in other articles?

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very important	24	30	20	26	29	32	30	28
Somewhat important	43	46	52	50	55	54	56	54
Not very important	23	13	21	22	12	14	2	8
Not at all important	9	9	6	2	3	-	4	4
Not sure	-	2	1	-	*	-	8	6
Base	98	102	99	104	201	50	50	50

---

*Less than 0.5%.

Q.12a

Table 3-40

Q.: I'd like to ask you about some of the specific criteria that might be used to rank articles as reliable sources of information. How important to you is/are . . . the academic credentials of the author?

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very important	15	25	15	13	24	28	32	32
Somewhat important	45	49	56	59	54	50	62	46
Not very important	27	17	21	24	14	20	6	14
Not at all important	12	9	7	4	6	2	-	6
Not sure	1	-	1	-	1	-	-	2
Base	98	102	99	104	201	50	50	50

Q.12a

Table 3-41

Q.: I'd like to ask you about some of the specific criteria that might be used to rank articles as reliable sources of information. How important to you is/are . . . the fact that the author has many prior publications?

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Very important	10	16	7	6	8	18	12	14
Somewhat important	45	50	43	44	55	56	58	68
Not very important	28	26	30	45	27	22	24	14
Not at all important	16	8	17	5	8	4	6	2
Not sure	1	-	2	-	*	-	-	2
Base	98	102	99	104	201	50	50	50

---

*Less than 0.5%.

Q.12a

SUMMARY TABLE "3-I"
IMPORTANCE OF VARIOUS RANKING CRITERIA TO BASIC SCIENCE FACULTY

Base: Basic science teaching/research scientists

Base: 98	Important* %	Not Important* %	Not Sure %
1. The prior research achievements of the author	82	17	1
2. The academic credentials of the author	60	39	1
3. The fact that the author has many prior publications	55	44	1
4. The uniqueness of the article or the findings presented	91	5	4
5. The relevance of the article to a scientific inquiry or research problem	90	4	5
6. The number of citations the article has generated in other articles	67	32	-
7. The quality of the journal the article appeared in	91	8	1
8. The relevance of the article to clinical decision making	56	30	14

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*Important = "Very important" and "somewhat important."
Not important = "Not very important" and "not at all important."

Q.12a

SUMMARY TABLE "3-J"
IMPORTANCE OF VARIOUS RATING CRITERIA TO CLINICAL FACULTY

Base: Clinical teaching/research scientists

Base: 102	Important* %	Not Important* %	Not Sure %
1. The prior research achievements of the author	79	21	-
2. The academic credentials of the author	74	26	-
3. The fact that the author has many prior publications	66	34	-
4. The uniqueness of the article or the findings presented	92	5	3
5. The relevance of the article to a scientific inquiry or research problem	92	2	6
6. The number of citations the article has generated in other articles	76	22	2
7. The quality of the journal the article appeared in	94	6	-
8. The relevance of the article to clinical decision making	75	18	7

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*Important = "Very important" and "somewhat important."
Not important = "Not very important" and "not at all important."

Q.12a

SUMMARY TABLE "3-K"
IMPORTANCE OF VARIOUS RANKING CRITERIA TO MEDICAL STUDENTS

Base: Medical students

Base: 99	Important* %	Not Important* %	Not Sure %
1. The prior research achievements of the author	59	39	1
2. The academic credentials of the author	71	28	1
3. The fact that the author has many prior publications	50	47	2
4. The uniqueness of the article or the findings presented	85	13	1
5. The relevance of the article to a scientific inquiry or research problem	95	4	1
6. The number of citations the article has generated in other articles	72	27	1
7. The quality of the journal the article appeared in	82	16	1
8. The relevance of the article to clinical decision making	90	8	2

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*Important = "Very important" and "somewhat important."
Not important = "Not very important" and "not at all important."

Q.12a

SUMMARY TABLE "3-L"
IMPORTANCE OF VARIOUS RANKING CRITERIA TO RESIDENTS

Base: Residents

Base: 104	Important* %	Not Important* %	Not Sure %
1. The prior research achievements of the author	62	39	-
2. The academic credentials of the author	72	28	-
3. The fact that the author has many prior publications	50	50	-
4. The uniqueness of the article or the findings presented	91	10	-
5. The relevance of the article to a scientific inquiry or research problem	95	5	-
6. The number of citations the article has generated in other articles	76	24	-
7. The quality of the journal the article appeared in	91	9	-
8. The relevance of the article to clinical decision making	97	3	-

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*Important = "Very important" and "somewhat important."
Not important = "Not very important" and "not at all important."

Q.12a

SUMMARY TABLE "3-M"
IMPORTANCE OF VARIOUS RANKING CRITERIA TO OFFICE-BASED PHYSICIANS

Base: Office-based physicians

Base: 201	Important** %	Not Important** %	Not Sure %
1. The prior research achievements of the author	79	19	1
2. The academic credentials of the author	78	20	1
3. The fact that the author has many prior publications	63	35	*
4. The uniqueness of the article or the findings presented	93	6	*
5. The relevance of the article to a scientific inquiry or research problem	94	3	2
6. The number of citations the article has generated in other articles	84	15	*
7. The quality of the journal the article appeared in	92	6	1
8. The relevance of the article to clinical decision making	95	3	1

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*Less than 0.5%

**Important = "Very important" and "somewhat important."
Not important = "Not very important" and "not at all important."

Q.12a

SUMMARY TABLE "3-N"
IMPORTANCE OF VARIOUS RANKING CRITERIA TO DEANS

Base: Deans

Base: 50	Important* %	Not Important* %	Not Sure %
1. The prior research achievements of the author	88	12	-
2. The academic credentials of the author	78	22	-
3. The fact that the author has many prior publications	74	26	-
4. The uniqueness of the article or the findings presented	94	4	2
5. The relevance of the article to a scientific inquiry or research problem	96	4	-
6. The number of citations the article has generated in other articles	86	14	-
7. The quality of the journal the article appeared in	98	-	2
8. The relevance of the article to clinical decision making	92	8	-

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*Important = "Very important" and "somewhat important."
Not important = "Not very important" and "not at all important."

Q.12a

SUMMARY TABLE "3-O"
IMPORTANCE OF VARIOUS RANKING CRITERIA TO MEDICAL SCHOOL CHIEF LIBRARIANS

Base: Medical school chief librarians

Base: 50	Important* %	Not Important* %	Not Sure %
1. The prior research achievements of the author	92	6	2
2. The academic credentials of the author	94	6	-
3. The fact that the author has many prior publications	70	30	-
4. The uniqueness of the article or the findings presented	94	4	2
5. The relevance of the article to a scientific inquiry or research problem	96	2	2
6. The number of citations the article has generated in other articles	86	6	8
7. The quality of the journal the article appeared in	98	-	2
8. The relevance of the article to clinical decision making	94	-	6

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*Important = "Very important" and "somewhat important."
Not important = "Not very important" and "not at all important."

Q.12a

SUMMARY TABLE "3-P"
IMPORTANCE OF VARIOUS RANKING CRITERIA TO AFFILIATE HOSPITAL CHIEF LIBRARIANS

Base: Affiliate hospital chief librarians

Base: 50	Important* %	Not Important* %	Not Sure %
1. The prior research achievements of the author	88	10	2
2. The academic credentials of the author	78	20	2
3. The fact that the author has many prior publications	82	16	2
4. The uniqueness of the article or the findings presented	88	8	4
5. The relevance of the article to a scientific inquiry or research problem	86	8	6
6. The number of citations the article has generated in other articles	82	12	6
7. The quality of the journal the article appeared in	90	6	4
8. The relevance of the article to clinical decision making	84	10	6

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*Important = "Very important" and "somewhat important."
Not important = "Not very important" and "not at all important."

Q.12b

Table 3-42

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? The relevance of the article to a scientific inquiry or research problem.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	65	72	81	86	83	92	82	66
Oppose	30	21	18	14	13	8	10	30
Not sure	5	8	1	-	4	-	8	4
Base	98	102	99	104	201	50	50	50

Q.12b

Table 3-43

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? The uniqueness of the article or the findings presented.

	Users						Chief Librarians	
	Teaching/Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	68	69	69	76	80	80	80	68
Oppose	31	26	30	22	17	20	16	28
Not sure	1	5	1	2	3	-	4	4
Base	98	102	99	104	201	50	50	50

Q.12b

Table 3-44

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? The quality of the journal the article appeared in.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	65	68	54	60	79	82	80	50
Oppose	33	31	44	39	18	18	16	44
Not sure	2	1	2	1	3	-	4	6
Base	98	102	99	104	201	50	50	50

Q.12b

Table 3-45

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? The number of citations the article has generated in other articles.

	Users						Chief Librarians	
	Teaching/Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	46	62	52	65	73	72	56	48
Oppose	51	35	46	35	24	26	32	46
Not sure	3	3	2	-	3	2	12	6
Base	98	102	99	104	201	50	50	50

Q.12b

Table 3-46

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? The relevance of the article to clinical decision making.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	40	47	24	31	50	74	82	70
Oppose	56	51	73	68	44	26	12	24
Not sure	4	2	3	1	6	-	6	6
Base	98	102	99	104	201	50	50	50

Q.12b

Table 3-47

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? The prior research achievements of the author.

	Users						Chief Librarians	
	Teaching/Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	41	47	28	26	52	54	58	46
Oppose	55	52	70	73	44	44	38	52
Not sure	4	1	2	1	4	2	4	2
Base	98	102	99	104	201	50	50	50

Q.12b

Table 3-48

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? The academic credentials of the author.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	28	40	31	29	51	58	54	52
Oppose	69	59	67	70	45	42	40	46
Not sure	3	1	2	1	4	-	6	2
Base	98	102	99	104	201	50	50	50

Q.12b

Table 3-49

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? The fact that the author has many prior publications.

	Users						Chief Librarians	
	Teaching/Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	28	35	24	30	39	46	38	38
Oppose	70	62	75	69	57	48	62	54
Not sure	2	3	1	1	4	6	-	8
Base	98	102	99	104	201	50	50	50

Q. 12c

Table 3-50

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? The relevance of the article to a scientific inquiry or research problem.

	Users						Chief Librarians	
	Teaching/Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	52	60	52	68	73	88	84	54
Oppose	45	36	46	32	21	10	6	42
Not sure	3	4	2	-	5	2	10	4
Base	98	102	99	104	201	50	50	50

Q.12c

Table 3-51

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? The uniqueness of the article or the findings presented.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	66	74	81	83	81	84	80	62
Oppose	27	18	17	17	13	14	16	34
Not sure	7	9	2	-	6	2	4	4
Base	98	102	99	104	201	50	50	50

Q.12c

Table 3-52

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? The quality of the journal the article appeared in.

	Users						Chief Librarians	
	Teaching/Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	39	59	77	79	80	78	74	48
Oppose	41	30	21	21	16	20	18	46
Not sure	20	11	2	-	4	2	8	6
Base	98	102	99	104	201	50	50	50

Q.12c

Table 3-53

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? The number of citations the article has generated in other articles.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	69	68	54	56	78	66	58	50
Oppose	30	31	44	44	18	28	26	46
Not sure	1	1	2	-	4	6	16	4
Base	98	102	99	104	201	50	50	50

Q. 12c

Table 3-54

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? The relevance of the article to clinical decisionmaking.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	40	57	72	82	81	80	78	58
Oppose	40	32	26	18	16	18	16	34
Not sure	20	11	2	-	3	2	6	8
Base	98	102	99	104	201	50	50	50

Q.12c

Table 3-55

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? The relevance of the article to clinical decisionmaking.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	26	42	29	28	48	52	56	30
Oppose	70	56	69	71	45	42	40	66
Not sure	4	2	2	1	7	6	4	4
Base	98	102	99	104	201	50	50	50

Q.12c

Table 3-56

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? The academic credentials of the author.

	Users							
	Teaching/Research Scientist						Chief Librarians	
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	31	37	24	28	38	54	46	36
Oppose	65	60	75	71	56	40	46	62
Not sure	4	3	1	1	6	6	8	2
Base	98	102	99	104	201	50	50	50

Q.12c

Table 3-57

Q.: Would you favor or oppose the use of this as a criterion for deciding which articles input into an online database? The fact that the author has many prior publications.

	Users						Chief Librarians	
	Teaching/Research Scientist							
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians	Deans	Medical Schools	Affiliate Hospitals
	%	%	%	%	%	%	%	%
Favor	68	67	66	73	76	42	36	28
Oppose	29	27	33	26	19	52	62	68
Not sure	3	6	1	1	4	6	2	4
Base	98	102	99	104	201	50	50	50

Q.13a

Table 3-58

Q.: We've been talking about online computerized databases. Soon we may be seeing something a little different: distributed databases for the medical sciences and medical practice, issued in the form of optical disks or CDs, that could be accessed by a personal computer equipped with a special drive to read optical media. Updated disks would be issued regularly. The distributed database would contain the most frequently cited medical literature only, but would be easier to search than most online databases for the medical sciences today. How likely do you think you would be to use a distributed database such as the kind I've just described?

	Users				
	Teaching/Research Scientist				
	Basic Science %	Clinical %	Medical Students %	Residents %	Office-Based Physicians %
Very likely	26	28	40	32	31
Somewhat likely	44	44	38	45	36
Not very likely	20	19	13	19	20
Not at all likely	4	7	7	3	12
Not sure	6	2	1	1	1
Base	98	102	99	104	201

Q.13b

Table 3-59

Q.: How willing would you be to access a distributed database yourself, without having a librarian or trained information specialist doing it for you?

Base: Very/somewhat likely to use a distributed database

	Users				
	Teaching/Research Scientist				
	Basic Science	Clinical	Medical Students	Residents	Office-Based Physicians
	%	%	%	%	%
Very willing	53	46	71	60	40
Somewhat willing	35	36	26	30	37
Not very willing	10	9	3	9	15
Not at all willing	1	7	1	1	5
Not sure	-	1	-	-	2
Base	68	74	78	80	134

Q.1

SUMMARY TABLE "3-Q"
BASIC FACULTY'S VIEWS ON
THE "INFORMATION EXPLOSION"

Base: Basic science teaching/research scientists

Base: 98	Agree* %	Disagree* %	Not Sure %
1. The sheer volume of medical data and information available today makes it difficult for basic scientists to stay current with what's happening in their fields	86	12	2
2. The sheer volume of medical data and information available today makes it difficult for clinicians to stay current with what's happening in their fields	85	2	13
3. With computerized database technology, it's easier and faster to access larger volumes of data today than it was to access far smaller volumes of data ten years ago	90	6	4
4. The "information explosion" in the medical sciences has made computerized information systems technology an essential component in a university, medical school, or hospital	95	4	1
5. Online computerized databases may be a big help in indexing and in retrieving specific information, but in many ways the printed index or card catalogue is still a more efficient tool	35	57	7
6. Universities, medical schools, and hospitals should no longer be judged solely on the number of books and periodicals in their library collections but also on the power of their data accessing and retrieval technology	86	10	4
7. In the medical field, fast and reliable access to information can mean the difference between life and death	57	29	14
8. With the "information explosion" multiplying exponentially the number of new books and articles in the medical sciences, it is time to reevaluate the "publish or perish" ethic and focus on quality instead of quantity in publications	89	5	5
9. The glut of information in the medical sciences presents serious problems unless we develop different systems of storage and retrieval	79	13	8

(Continued)

Q.1

SUMMARY TABLE "3-Q"
BASIC FACULTY'S VIEWS ON THE "INFORMATION EXPLOSION"

(Continued)

Base: Basic science teaching/research scientists

Base: 98	Agree* %	Disagree* %	Not Sure %
10. Medical school libraries should keep all materials of potential scholarly interest even if they are hardly ever used	62	36	2
11. Medical school libraries should keep all materials of potential clinical relevance even if they are hardly ever used	56	38	6
12. A medical school library should be judged on its ability to provide users with easy access to the most relevant information rather than on the size of its collection	90	8	2
13. One of the best ways to keep up with medical literature is to "browse" through a wide variety of journals	60	40	-

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*Agree = "Agree strongly" and "agree somewhat."
Disagree = "Disagree somewhat" and "disagree strongly."

Q.1

SUMMARY TABLE "3-R"
CLINICAL FACULTY'S VIEWS ON THE "INFORMATION EXPLOSION"

Base: Clinical teaching/research scientists

Base: 102	Agree* %	Disagree* %	Not Sure %
1. The sheer volume of medical data and information available today makes it difficult for basic scientists to stay current with what's happening in their fields	75	21	4
2. The sheer volume of medical data and information available today makes it difficult for clinicians to stay current with what's happening in their fields	84	13	3
3. With computerized database technology, it's easier and faster to access larger volumes of data today than it was to access far smaller volumes of data ten years ago	95	2	3
4. The "information explosion" in the medical sciences has made computerized information systems technology an essential component in a university, medical school, or hospital	95	3	2
5. Online computerized databases may be a big help in indexing and in retrieving specific information, but in many ways the printed index or card catalogue is still a more efficient tool	29	65	7
6. Universities, medical schools, and hospitals should no longer be judged solely on the number of books and periodicals in their library collections but also on the power of their data accessing and retrieval technology	94	5	1
7. In the medical field, fast and reliable access to information can mean the difference between life and death	64	32	5
8. With the "information explosion" multiplying exponentially the number of new books and articles in the medical sciences, it is time to reevaluate the "publish or perish" ethic and focus on quality instead of quantity in publications	93	6	2
9. The glut of information in the medical sciences presents serious problems unless we develop different systems of storage and retrieval	77	19	4

(Continued)

Q.1

SUMMARY TABLE "3-R"
CLINICAL FACULTY'S VIEWS ON THE "INFORMATION EXPLOSION"

(Continued)

Base: Clinical teaching/research scientists

Base: 102	Agree* %	Disagree* %	Not Sure %
10. Medical school libraries should keep all materials of potential scholarly interest even if they are hardly ever used	65	34	1
11. Medical school libraries should keep all materials of potential clinical relevance even if they are hardly ever used	63	36	1
12. A medical school library should be judged on its ability to provide users with easy access to the most relevant information rather than on the size of its collection	80	17	3
13. One of the best ways to keep up with medical literature is to "browse" through a wide variety of journals	50	48	2

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*Agree = "Agree strongly" and "agree somewhat."
Disagree = "Disagree somewhat" and "disagree strongly."

Q.1

SUMMARY TABLE "3-S"
MEDICAL STUDENTS' VIEWS ON THE "INFORMATION EXPLOSION"

Base: Medical students

Base: 99	Agree* %	Disagree* %	Not Sure %
1. The sheer volume of medical data and information available today makes it difficult for basic scientists to stay current with what's happening in their fields	78	21	-
2. The sheer volume of medical data and information available today makes it difficult for clinicians to stay current with what's happening in their fields	85	13	1
3. With computerized database technology, it's easier and faster to access larger volumes of data today than it was to access far smaller volumes of data ten years ago	93	5	2
4. The "information explosion" in the medical sciences has made computerized information systems technology an essential component in a university, medical school, or hospital	93	6	1
5. Online computerized databases may be a big help in indexing and in retrieving specific information, but in many ways the printed index or card catalogue is still a more efficient tool	35	63	2
6. Universities, medical schools, and hospitals should no longer be judged solely on the number of books and periodicals in their library collections but also on the power of their data accessing and retrieval technology	84	15	-
7. In the medical field, fast and reliable access to information can mean the difference between life and death	67	29	3
8. With the "information explosion" multiplying exponentially the number of new books and articles in the medical sciences, it is time to reevaluate the "publish or perish" ethic and focus on quality instead of quantity in publications	93	7	-
9. The glut of information in the medical sciences presents serious problems unless we develop different systems of storage and retrieval	81	19	-

(Continued)

Q.1

SUMMARY TABLE "3-S"
MEDICAL STUDENTS' VIEWS ON THE "INFORMATION EXPLOSION"

(Continued)

Base: Medical students

Base: 99	Agree* %	Disagree* %	Not Sure %
10. Medical school libraries should keep all materials of potential scholarly interest even if they are hardly ever used	63	34	2
11. Medical school libraries should keep all materials of potential clinical relevance even if they are hardly ever used	74	25	-
12. A medical school library should be judged on its ability to provide users with easy access to the most relevant information rather than on the size of its collection	94	5	1
13. One of the best ways to keep up with medical literature is to "browse" through a wide variety of journals	60	37	2

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*Agree = "Agree strongly" and "agree somewhat."
Disagree = "Disagree somewhat" and "disagree strongly."

Q.1

SUMMARY TABLE "3-T"
RESIDENTS' VIEWS ON THE "INFORMATION EXPLOSION"

Base: Residents

Base: 104	Agree* %	Disagree* %	Not Sure %
1. The sheer volume of medical data and information available today makes it difficult for basic scientists to stay current with what's happening in their fields	83	15	2
2. The sheer volume of medical data and information available today makes it difficult for clinicians to stay current with what's happening in their fields	89	11	-
3. With computerized database technology, it's easier and faster to access larger volumes of data today than it was to access far smaller volumes of data ten years ago	96	3	2
4. The "information explosion" in the medical sciences has made computerized information systems technology an essential component in a university, medical school, or hospital	95	5	-
5. Online computerized databases may be a big help in indexing and in retrieving specific information, but in many ways the printed index or card catalogue is still a more efficient tool	45	52	4
6. Universities, medical schools, and hospitals should no longer be judged solely on the number of books and periodicals in their library collections but also on the power of their data accessing and retrieval technology	94	5	1
7. In the medical field, fast and reliable access to information can mean the difference between life and death	74	25	1
8. With the "information explosion" multiplying exponentially the number of new books and articles in the medical sciences, it is time to reevaluate the "publish or perish" ethic and focus on quality instead of quantity in publications	93	6	1
9. The glut of information in the medical sciences presents serious problems unless we develop different systems of storage and retrieval	88	13	-

(Continued)

Q.1

SUMMARY TABLE "3-T"
RESIDENTS' VIEWS ON THE "INFORMATION EXPLOSION"

(Continued)

Base: Residents

Base: 104	Agree* %	Disagree* %	Not Sure %
10. Medical school libraries should keep all materials of potential scholarly interest even if they are hardly ever used	62	36	2
11. Medical school libraries should keep all materials of potential clinical relevance even if they are hardly ever used	80	19	1
12. A medical school library should be judged on its ability to provide users with easy access to the most relevant information rather than on the size of its collection	91	8	2
13. One of the best ways to keep up with medical literature is to "browse" through a wide variety of journals	65	33	2

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*Agree = "Agree strongly" and "agree somewhat."
Disagree = "Disagree somewhat" and "disagree strongly."

Q.1

SUMMARY TABLE "3-U"
OFFICE-BASED PHYSICIANS' VIEWS ON THE "INFORMATION EXPLOSION" (SUMMARY)

Base: Office-based physicians

Base: 201	Agree** %	Disagree** %	Not Sure %
1. The sheer volume of medical data and information available today makes it difficult for basic scientists to stay current with what's happening in their fields	83	14	2
2. The sheer volume of medical data and information available today makes it difficult for clinicians to stay current with what's happening in their fields	87	12	-
3. With computerized database technology, it's easier and faster to access larger volumes of data today than it was to access far smaller volumes of data ten years ago	94	3	3
4. The "information explosion" in the medical sciences has made computerized information systems technology an essential component in a university, medical school, or hospital	93	4	1
5. Online computerized databases may be a big help in indexing and in retrieving specific information, but in many ways the printed index or card catalogue is still a more efficient tool	50	46	3
6. Universities, medical schools, and hospitals should no longer be judged solely on the number of books and periodicals in their library collections but also on the power of their data accessing and retrieval technology	91	7	2
7. In the medical field, fast and reliable access to information can mean the difference between life and death	77	22	*
8. With the "information explosion" multiplying exponentially the number of new books and articles in the medical sciences, it is time to reevaluate the "publish or perish" ethic and focus on quality instead of quantity in publications	97	3	*
9. The glut of information in the medical sciences presents serious problems unless we develop different systems of storage and retrieval	88	11	*

(Continued)

Q.1

SUMMARY TABLE "3-U"
OFFICE-BASED PHYSICIANS' VIEWS ON THE "INFORMATION EXPLOSION" (SUMMARY)

(Continued)

Base: Office-based physicians

Base: 201	Agree** %	Disagree** %	Not Sure %
10. Medical school libraries should keep all materials of potential scholarly interest even if they are hardly ever used	71	29	-
11. Medical school libraries should keep all materials of potential clinical relevance even if they are hardly ever used	71	28	*
12. A medical school library should be judged on its ability to provide users with easy access to the most relevant information rather than on the size of its collection	96	4	-
13. One of the best ways to keep up with medical literature is to "browse" through a wide variety of journals	67	31	1

---

*Less than 0.5%.

**Agree = "Agree strongly" and "agree somewhat."
Disagree = "Disagree somewhat" and "disagree strongly."

Q.1

SUMMARY TABLE "3-V"
DEANS' VIEWS ON THE "INFORMATION EXPLOSION"

Base: Deans

Base: 50	Agree* %	Disagree* %	Not Sure %
1. The sheer volume of medical data and information available today makes it difficult for basic scientists to stay current with what's happening in their fields	86	14	-
2. The sheer volume of medical data and information available today makes it difficult for clinicians to stay current with what's happening in their fields	90	10	-
3. With computerized database technology, it's easier and faster to access larger volumes of data today than it was to access far smaller volumes of data ten years ago	100	-	-
4. The "information explosion" in the medical sciences has made computerized information systems technology an essential component in a university, medical school, or hospital	98	2	-
5. Online computerized databases may be a big help in indexing and in retrieving specific information, but in many ways the printed index or card catalogue is still a more efficient tool	26	72	2
6. Universities, medical schools, and hospitals should no longer be judged solely on the number of books and periodicals in their library collections but also on the power of their data accessing and retrieval technology	98	-	2
7. In the medical field, fast and reliable access to information can mean the difference between life and death	78	22	-
8. With the "information explosion" multiplying exponentially the number of new books and articles in the medical sciences, it is time to reevaluate the "publish or perish" ethic and focus on quality instead of quantity in publications	88	10	2
9. The glut of information in the medical sciences presents serious problems unless we develop different systems of storage and retrieval	92	6	2

(Continued)

Q.1

SUMMARY TABLE "3-V"
DEANS' VIEWS ON THE "INFORMATION EXPLOSION"

(Continued)

Base: Deans

Base: 50	Agree* %	Disagree* %	Not Sure %
10. Medical school libraries should keep all materials of potential scholarly interest even if they are hardly ever used	44	56	-
11. Medical school libraries should keep all materials of potential clinical relevance even if they are hardly ever used	42	56	2
12. A medical school library should be judged on its ability to provide users with easy access to the most relevant information rather than on the size of its collection	96	4	-
13. One of the best ways to keep up with medical literature is to "browse" through a wide variety of journals	54	46	-

---

*Agree = "Agree strongly" and "agree somewhat."
Disagree = "Disagree somewhat" and "disagree strongly."

Q.1

SUMMARY TABLE "3-W"
MEDICAL SCHOOL CHIEF LIBRARIANS' VIEWS ON THE "INFORMATION EXPLOSION"

Base: Medical school chief librarians

	Agree* %	Disagree* %	Not Sure %
Base:			
1. The sheer volume of medical data and information available today makes it difficult for basic scientists to stay current with what's happening in their fields	86	12	2
2. The sheer volume of medical data and information available today makes it difficult for clinicians to stay current with what's happening in their fields	94	4	2
3. With computerized database technology, it's easier and faster to access larger volumes of data today than it was to access far smaller volumes of data ten years ago	98	2	-
4. The "information explosion" in the medical sciences has made computerized information systems technology an essential component in a university, medical school, or hospital	98	2	-
5. Online computerized databases may be a big help in indexing and in retrieving specific information, but in many ways the printed index or card catalogue is still a more efficient tool	30	68	2
6. Universities, medical schools, and hospitals should no longer be judged solely on the number of books and periodicals in their library collections but also on the power of their data accessing and retrieval technology	100	-	-
7. In the medical field, fast and reliable access to information can mean the difference between life and death	92	8	-
8. With the "information explosion" multiplying exponentially the number of new books and articles in the medical sciences, it is time to reevaluate the "publish or perish" ethic and focus on quality instead of quantity in publications	98	2	-
9. The glut of information in the medical sciences presents serious problems unless we develop different systems of storage and retrieval	90	8	2

(Continued)

Q.1

SUMMARY TABLE "3-W"
MEDICAL SCHOOL CHIEF LIBRARIANS' VIEWS ON THE "INFORMATION EXPLOSION"

(Continued)

Base: Medical school chief librarians

Base:	Agree* %	Disagree* %	Not Sure %
10. Medical school libraries should keep all materials of potential scholarly interest even if they are hardly ever used	52	44	4
11. Medical school libraries should keep all materials of potential clinical relevance even if they are hardly ever used	56	40	4
12. A medical school library should be judged on its ability to provide users with easy access to the most relevant information rather than on the size of its collection	98	-	2
13. One of the best ways to keep up with medical literature is to "browse" through a wide variety of journals	72	26	2

---

*Agree = "Agree strongly" and "agree somewhat."
Disagree = "Disagree somewhat" and "disagree strongly."

Q.1

SUMMARY TABLE "3-X"
AFFILIATE HOSPITAL CHIEF LIBRARIANS' VIEWS ON THE "INFORMATION EXPLOSION"

Base: Affiliate hospital chief librarians

		Agree* %	Disagree* %	Not Sure %
Base:				
1.	The sheer volume of medical data and information available today makes it difficult for basic scientists to stay current with what's happening in their fields	88	12	-
2.	The sheer volume of medical data and information available today makes it difficult for clinicians to stay current with what's happening in their fields	86	12	2
3.	With computerized database technology, it's easier and faster to access larger volumes of data today than it was to access far smaller volumes of data ten years ago	98	2	-
4.	The "information explosion" in the medical sciences has made computerized information systems technology an essential component in a university, medical school, or hospital	98	-	2
5.	Online computerized databases may be a big help in indexing and in retrieving specific information, but in many ways the printed index or card catalogue is still a more efficient tool	26	68	6
6.	Universities, medical schools, and hospitals should no longer be judged solely on the number of books and periodicals in their library collections but also on the power of their data accessing and retrieval technology	92	8	-
7.	In the medical field, fast and reliable access to information can mean the difference between life and death	96	2	2
8.	With the "information explosion" multiplying exponentially the number of new books and articles in the medical sciences, it is time to reevaluate the "publish or perish" ethic and focus on quality instead of quantity in publications	100	-	-
9.	The glut of information in the medical sciences presents serious problems unless we develop different systems of storage and retrieval	78	20	2

(Continued)

Q.1

SUMMARY TABLE "3-X"
AFFILIATE HOSPITAL CHIEF LIBRARIANS' VIEWS ON THE "INFORMATION EXPLOSION"

(Continued)

Base: Affiliate hospital chief librarians

Base:	Agree* %	Disagree* %	Not Sure %
10. Medical school libraries should keep all materials of potential scholarly interest even if they are hardly ever used	36	62	2
11. Medical school libraries should keep all materials of potential clinical relevance even if they are hardly ever used	50	48	2
12. A medical school library should be judged on its ability to provide users with easy access to the most relevant information rather than on the size of its collection	88	8	4
13. One of the best ways to keep up with medical literature is to "browse" through a wide variety of journals	52	46	2

---

*Agree = "Agree strongly" and "agree somewhat."
Disagree = "Disagree somewhat" and "disagree strongly."

APPENDIX A: SURVEY METHODOLOGY

The Future of Information Systems for the Medical Sciences survey is based on interviews with 759 members of the medical community. All interviews were conducted between September 22, 1986 and January 8, 1987.

SAMPLE DESIGN

Basic Science and Clinical Teaching/ Research Faculty

The sample used for public and private medical school faculty, in both the Basic Science and Clinical categories, was provided by the American Association of Medical Colleges.

A representative sample of ninety-eight basic science faculty and 102 clinical faculty, projectable to the universe of 58,433 such faculty members nationwide, were interviewed. Theoretically, every basic science and clinical faculty member had an equal chance of being able to participate. The sample used by Louis Harris and Associates was randomly derived by the American Association of Medical Colleges nthing through the total universe of sample available. In this case, approximately every 58th name was chosen. 1,000 names of teaching scientists were given to Louis Harris and Associates; 500 basic science faculty and 500 clinical faculty.

Letters inviting participation were sent out by Louis Harris and Associates to the entire sample of 1,000 medical school faculty members, followed-up the next week by telephone calls from executive Harris interviewers to set up appointments. Following the study's completion, response rates were calculated by dividing the number of completed interviews by the sum of the number of completes and all eligible respondents. If a person was not the designated respondent, was not in town for the duration of the interview, did not speak English, or had health problems, he or she was deemed ineligible. All other parties were considered eligible. In all, the response rate for those basic science faculty members reached by telephone was 72% and the response rate for the clinical faculty contacted by telephone was 33%. A profile of these participants appears in "Profile Table 1" in this Appendix.

Medical Students

The sample of third and fourth year medical students was obtained from Fisher-Stevens, and represented both private and public medical schools nationwide. A representative sample of 99 students, projectable to the universe of 28,796 third and fourth year students nationwide, participated in the study. Theoretically, every medical student in his or her third or fourth years had an equal chance of being able to participate. Of course, unavailability sometimes prevented participation. The sample used by Louis Harris and Associates was randomly derived by Fisher-Stevens nthing through the total universe of sample available. In this case, approximately every 24th name was chosen, and Louis Harris and Associates was provided with a list of 1,200 names. Through Fisher-Stevens, letters inviting participation were sent to the students, with a toll-free telephone number to call in order to set up an appointment for an interview. Students could call, at their convenience, any day of the week from 9 a. m. to 9:30 p. m., Eastern Standard Time, between September 15, 1986 and October 31, 1986. In all, the response rate for this group was 45%. A profile is provided in "Profile Table II" in this Appendix.

Medical Residents

The sample for medical residents was also obtained from Fisher-Stevens. A representative sample of 104 medical residents, projectable to the universe of 72,205 residents in public and private institutions nationwide, participated. Theoretically, every resident had an equal chance of being able to participate, though availability sometimes prevented participation. The sample used by Louis Harris and Associates was derived by Fisher-Stevens nthing through the total universe of sample available. Every approximately 60th name was chosen, and 1,200 names in all were given to Louis Harris and Associates. As with medical students, Fisher-Stevens sent out letters inviting participation, with a toll-free telephone number to call in order to set up an interview appointment. They, too, could call at their convenience, seven days a week between the hours of 9:00 a. m. and 9:30 p. m., Eastern Standard Time, from September 15, 1986 through October 31, 1986. The response rate for medical residents was 44%; their profile appears in "Profile Table III" in this Appendix.

Patient-Care, Office-Based Physicians

Fisher-Stevens was also the source for the representative sample of 201 physicians who participated in the study and who are projectable to the universe of approximately 325,888 office-based, patient-care physicians nationwide. Theoretically, every patient-care, office-based physician had an equal chance to participate, although physicians in general are notorious for being difficult to interview. From the total universe, Fisher-Stevens randomly nthed every approximately 272nd name to develop a sample of 1,200. Letters were sent by Fisher-Stevens to the physicians, indicating that an executive Harris interviewer would be telephoning in a week or so to set up an appointment for an interview. Given the characteristically low response of physicians in general, these physicians were offered a $50.00 incentive for their participation in the study. The overall response rate was 29%. The profile of participating physicians appears in "Profile Table IV".

Deans

Barron's Guide to Medical and Dental Schools, Second Edition, published in 1985, was the source for the universe of deans of medical schools. Louis Harris and Associates's Sampling Department used all 120 pieces of available sample, which represents all 120 public and private medical schools in the country. Letters inviting participation were sent to all 120 deans, and executive Harris interviewers called within a few weeks to set up appointments. All deans had an equal chance to be interviewed. In total, 50 deans from medical schools all across the country participated, with a total response rate of 68%. Their profile appears in "Profile Table V".

Chief Librarians in Medical School Libraries

Barron's Guide to Medical and Dental Schools, Second Edition, was also the source of the representative sample of 50 chief librarians of medical school libraries who participated in the study. The Harris Sampling Department used the list of medical schools that it had created, and the Field Department called each school to determine the name of its chief librarian. Letters inviting participation were sent to all 120 librarians, so each librarian had an equal chance of participating. Executive Harris interviewers called within a few weeks to set up appointments. The participating 50 chief librarians in medical school libraries represent a response rate of 86%. "Profile Table VI" provides background information on them.

Chief Librarians in Affiliate Hospital Libraries

The COTH Directory 1986 of Educational Programs and Services was the source from which the Harris Sampling Department drew the universe for this group of librarians. A listing of all 150 affiliate hospital libraries contained in the COTH Directory was drawn up and sent to the Harris Field Department, where calls were made to determine the name of the chief librarian. Executive interviewers then called the librarians to set up appointments. In all, 50 chief librarians, projectable to the entire universe of 150 chief librarians of affiliate hospital libraries, participated, for a response rate of 82%. Their profile is contained in "Profile Table VI."

Members of the Liaison Committee on Medical Education

The Liaison Committee kindly sent Louis Harris and Associates their listing of members. In all, 19 members were listed. Two were deemed ineligible to participate in the study because they were student participants on the Committee. The two public members of the Committee were also considered ineligible, as were the two members on the Canadian Committee and the one federal participant on the Committee. That yielded a universe of twelve members of the Liaison Committee on Medical Education, six of whom were appointed by the Council on Medical Education -- AMA, and six of whom were appointed by the Association of American Medical Colleges and all of whom had an equal chance to participate. Letters inviting participation were sent to all twelve eligible LCME members. An executive Harris interviewer telephoned several weeks later to set up an appointment for an interview. In all, five of the twelve members of the LCME participated in the survey, for an overall response rate of 56%. Their profile is contained in "Profile Table VII".

INTERVIEWING

Medical School Faculty, Office-Based Physicians, Deans, Chief Librarians, and Accrediting Committee Members

An initial telephone call plus three call-back attempts were allowed for each piece of sample. There was no refusal conversion, that is, if someone refused to participate, he or she was not called back to see if they had changed their mind.

No referrals were accepted for the study; the interview had to be conducted with the name of the person listed on the Sample Card, unless it was determined that that person was not the correct respondent or if the person no longer held that position.

Physicians were the only group to receive an incentive.

Medical Students

After having received letters, these participants called Louis Harris and Associates's central telephoning facility in New York City, either to set up appointments or to actually do the interview. Regional quotas were established to ensure that a cross-section was achieved. Due to the fact that New York State residents could not use the toll-free number they were given in their letters, the Harris Field Department called these people individually. An initial call plus three call-back attempts were allowed for each piece of sample. Substitutions were made on a one-to-one basis by the Field Department.

Residents

This group of potential participants received letters with the tollfree number listed and a request for them to call to set up an appointment or do the interview when they called. They took longer to respond than did medical students, so a decision was made for Harris executive interviewers to call them rather than to wait for their calls, which could have delayed completion of the study. The list of 120 medical schools that had been compiled by the Sample Department was used to obtain the names and telephone numbers of the schools. Executive interviewers called and obtained the names of the residents. One initial attempt plus three call-back attempts were allowed for each name. Those residents who did use the toll-free number to call the Harris facility were controlled regionally to ensure that a true cross-section would be maintained.

WEIGHTING

There was no weighting of the completed interviews.

Sampling Error

The results achieved from all sample surveys are subject to sampling error. Sampling error is defined as the difference between the results obtained from the sample and those that would have been obtained had the entire relevant population been surveyed. The size of the sampling error varies both with the size of the sample and with the percentage giving a particular answer. Table I sets forth the range of error in samples of different sizes at different percentages of response:

TABLE I

RECOMMENDED ALLOWANCE FOR SAMPLING ERROR OF PROPORTIONS (PLUS OR MINUS)

Sampling Tolerance (at 95% Confidence Level)
To Use in Evaluating Any Individual Percentage Result

Approximate Sample Size of Any Group Asked Question on Which Survey Result Is Based	Approximate Magnitude of Results				
	Survey Percentage Result at 10% or 90%	Survey Percentage Result at 20% or 80%	Survey Percentage Result at 30% or 70%	Survey Percentage Result at 40% or 60%	Survey Percentage Result at 50%
500	3	4	4	4	4
300	3	5	5	6	6
200	4	6	6	7	7
100	6	8	9	10	10
50	8	11	13	14	14

For example, if the response for a sample size of 500 is 30%, in 95 cases out of 100 the response in the total population would be between 26% and 34%.

Significance of Difference Between Proportions

The difference between the percentage responses given by two independent samples to the same question may or may not be significant. To determine whether or not such a difference is indeed significant, the size of the samples involved and the percentage giving each response must be taken into account. Table II shows the margin of error that must be allowed for different sample sizes at different percentages of response:

TABLE II

SAMPLING ERROR OF DIFFERENCE BETWEEN PROPORTIONS

Sampling Tolerances (at 95% Confidence Level)
to Use in Evaluating Differences Between Two Percentage Results

Approximate Sample Size of Any Group Asked Question on Which Survey Result Is Based	Approximate Magnitude of Results				
	Survey Percentage Result at 10% or 90%	Survey Percentage Result at 20% or 80%	Survey Percentage Result at 30% or 70%	Survey Percentage Result at 40% or 60%	Survey Percentage Result at 50%
500 vs. 500	4	4	6	6	6
300	4	6	7	7	7
200	6	7	8	8	8
100	7	9	10	11	11
50	9	12	13	14	15
300 vs. 300	5	6	7	8	8
200	5	7	8	9	9
100	7	9	10	11	11
50	9	12	14	15	15
200 vs. 200	6	8	9	10	10
100	7	10	11	12	12
50	9	12	14	15	15
100 vs. 100	8	11	13	14	14
50	10	14	16	17	17
50 vs. 50	12	16	18	19	20

For example, suppose one group of size 500 has a response of 35 % "yes" for a question, and an independent group of size 200 has a response of 26% "yes" for the same question, for a difference of 9 percentage points. According to the table, this difference is subject to a potential sampling error of plus or minus 8 percentage points. Since the observed difference is greater than the potential sampling error, the observed difference is significant. Moreover, if the entire population were interviewed, the difference would be from 1 to 17 percentage points (the 9-point observed difference plus or minus the 8-point potential sampling error) in 95 cases out of 100.

The recommended allowances for significance of difference were calculated based on a simple random sample.

Sampling error is only one way in which survey findings may vary from the findings that would result from interviewing every adult member of the relevant population. Survey research is susceptible to human and mechanical errors as well, such as interviewer recording and data handling errors. However, the procedures used by the Harris firm keep errors of this kind to a minimum.

PROFILE TABLE I

"WHO WE TALKED TO: BASIC SCIENCE AND CLINICAL FACULTY"

		Teaching/Research Scientists	
		Basic Science	Clinical
Years affiliated with current institution[1]			
Mean		17.6	17.1
Median		16.0	15.4
Years active in teaching or research[1]			
Mean		24.1	22.4
Median		23.5	22.0
Education[1]			
M.D.	%	24	72
Ph.D.	%	66	21
Both	%	8	7
Specialty of M.D.'s or those with M.D.'s and Ph.D.'s[2]			
Anesthesiology	%	-	6
Cardiovascular disease	%	-	3
Dermatology	%	-	5
Emergency medicine	%	-	-
Family practice	%	-	3
General practice	%	-	1
Internal medicine	%	6	15
Neurology	%	-	9
Obstetrics/gynecology	%	-	3
Ophthalmology	%	-	1
Otolaryngology	%	-	-
Pathology, anatomical/clinical	%	41	3
Pediatrics	%	-	10
Psychiatry	%	3	11
Radiology	%	-	3
Radiology, diagnostic	%	-	1
Surgery, General	%	-	4
Surgery, Orthopedic	%	-	-
Surgery, Urological	%	-	-
Other	%	47	24
None	%	3	-
Age[1]			
Mean		52.0	52.9
Median		51.9	52.4

---

[1] Base: Basic scientists = 98, clinical scientists = 102

[2] Base: Basic scientists = 32, clinical scientists = 80

PROFILE TABLE II

"WHO WE TALKED TO: MEDICAL STUDENTS"

	Medical Students
Age	
Mean	25.8
Median	25.0
Base:	99

PROFILE TABLE III

"WHO WE TALKED TO: RESIDENTS"

		Residents
Current Postgraduate year		
First	%	27
Second	%	31
Third	%	30
Fourth	%	1
Fifth	%	5
Specialty		
Anesthesiology	%	9
Cardiovascular disease	%	-
Dermatology	%	1
Emergency medicine	%	4
Family practice	%	13
General practice	%	2
Internal medicine	%	28
Neurology	%	1
Obstetrics/gynecology	%	4
Ophthalmology	%	2
Otolaryngology	%	3
Pathology, anatomical/clinical	%	3
Pediatrics	%	3
Psychiatry	%	6
Radiology	%	1
Radiology, diagnostic	%	2
Surgery, General	%	6
Surgery, Orthopedic	%	1
Surgery, Urological	%	2
Other	%	8
Age		
Mean		29.7
Median		28.4
Base:		104

PROFILE IV

"WHO WE TALKED TO: OFFICE-BASED PHYSICIANS"

		Office-Based Physicians
Years practicing medicine		
Mean		17.7
Median		15.2
Board Certified		
Yes	%	74
No	%	24
Specialty		
Anesthesiology	%	4
Cardiovascular disease	%	1
Dermatology	%	2
Emergency medicine	%	2
Family practice	%	15
General practice	%	3
Internal medicine	%	9
Neurology	%	2
Obstetrics/gynecology	%	8
Ophthalmology	%	4
Otolaryngology	%	-
Pathology, anatomical/clinical	%	3
Pediatrics	%	7
Psychiatry	%	7
Radiology	%	3
Radiology, diagnostic	%	2
Surgery, General	%	5
Surgery, Orthopedic	%	3
Surgery, Urological	%	*
Other	%	14
Age		
Mean		46.5
Median		44.2

---

*Less than 0.5%.

PROFILE TABLE V

"WHO WE TALKED TO: DEANS"

	Deans
Years as Dean	
Mean	6.2
Median	5.5
Total Years Active in Academic Life	
Mean	24.0
Median	23.5
Age	
Mean	54.2
Median	54.3
Base:	50

PROFILE TABLE VI

"WHO WE TALKED TO: CHIEF MEDICAL SCHOOL AND AFFILIATE HOSPITAL LIBRARIANS"

		Chief Librarians	
		Medical Schools	Affiliate Hospitals
Years Affiliated With Current Institution			
Mean		13.4	9.8
Median		12.3	10.3
Years Active as Library Professional			
Mean		20.5	14.8
Median		20.0	14.5
Education			
M.L.S.	%	62	78
M.A. or M.S.	%	54	46
Ph.D.	%	6	6
Other	%	8	6
Age			
Mean		48.2	46.4
Median		46.5	45.8
Base:		50	50

PROFILE TABLE VII

"WHO WE TALKED TO: ACCREDITING COMMITTEE"

	Accrediting Committee
Years as Committee Member	
Mean	3.6
Median	3.8
Age	
Mean	58.6
Median	57.8
Base:	5

APPENDIX B: QUESTIONNAIRE

NOTE: In the interest of keeping down the length of this report, only one of the 4 questionnaires is included. The other questionnaires are similar. Copies may be obtained on request from New York Academy of Medicine.

LOUIS HARRIS AND ASSOCIATES, INC.
630 Fifth Avenue
New York, New York 10111

/ FOR OFFICE USE ONLY:
/
/ Questionnaire No.:__________
/
/________________5-6-7-8__

Study No. 861020 (Users)

September 18, 1986

Sample Point No./ / / / / / /
10-11-12-13-14-15

Time Started:_______________A.M./P.M.

Interviewer:________________________ I.D. No.:_______ Date:______________

Respondent:____

Title:____

Address:____

City/State:______________________________ Zip:______________

Area Code: ____________ Telephone No.: ______________________________
(16-18) (19-25)

SWITCHBOARD INTRODUCTION (IF NECESSARY):

Hello, I'm ______________________, calling from Louis Harris and Associates, the national opinion research organization. May I please speak with Dr./Mr./Ms. (NAME FROM SAMPLE CARD)?

RESPONDENT INTRODUCTION:

Hello, I'm ______________________, calling from Louis Harris and Associates, the national opinion research organization. As you know from Mr. Harris's letter, we're conducting a survey about how information is disseminated and used in the basic and clinical medical sciences and medical practice. The New York Academy of Medicine is sponsoring the survey. We're talking to (medical scientists/physicians/residents/medical students) about the ways they get information in their fields and would like to speak with you for about twenty minutes, if you don't mind. Is now a good time?

Yes.....____ (CONTINUE WITH Q.1)

No......____ (MAKE APPOINTMENT)

____

INTERVIEWER: RECORD FROM SAMPLE CARD -- DO NOT ASK:

RESPONDENT IS A:

Teaching/research scientist in basic science departments..(26(	____-1
Teaching/research scientist in clinical departments...........	____-2
Third- or fourth-year medical student.........................	____-3
Resident..	____-4
Office-based patient care physician...........................	____-5

1. There has been much discussion recently about the so-called "information explosion," the impact it may be having on many fields today -- especially the medical sciences -- and how the challenges it poses might be faced. I'd like to start out by reading you some statements that have been made about this issue. For each, please say if you agree strongly, agree somewhat, disagree somewhat, or disagree strongly. READ EACH STATEMENT

ROTATE ITEMS 1-7 -- START AT "X"	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Not Sure
( ) 1. The sheer volume of medical data and information available today makes it difficult for basic scientists to stay current with what's happening in their fields........................	(27(____-1	____-2	____-3	____-4	____-5
( ) 2. The sheer volume of medical data and information available today makes it difficult for clinicians to stay current with what's happening in their fields........................	(28(____-1	____-2	____-3	____-4	____-5
( ) 3. With computerized database technology, it's easier and faster to access larger volumes of data today than it was to access far smaller volumes of data ten years ago..................	(29(____-1	____-2	____-3	____-4	____-5
( ) 4. The "information explosion" in the medical sciences has made computerized information systems technology an essential component in a university, medical school, or hospital.........	(30(____-1	____-2	____-3	____-4	____-5
( ) 5. Online computerized databases may be a big help in indexing and in retrieving specific information, but in many ways the printed index or card catalogue is still a more efficient tool.......	(31(____-1	____-2	____-3	____-4	____-5
( ) 6. Universities, medical schools, and hospitals should no longer be judged solely on the number of books and periodicals in their library collections but also on the power of their data accessing and retrieval technology.........................	(32(____-1	____-2	____-3	____-4	____-5
( ) 7. In the medical field, fast and reliable access to information can mean the difference between life and death....	(33(____-1	____-2	____-3	____-4	____-5

(Continued)

(Q.1 Continued)

There has been much discussion recently about the so-called "information explosion," the impact it may be having on many fields today -- especially the medical sciences -- and how the challenges it poses might be faced. I'd like to start out by reading you some statements that have been made about this issue. For each, please say if you agree strongly, agree somewhat, disagree somewhat, or disagree strongly. READ EACH STATEMENT

ROTATE ITEMS 8-13 -- START AT "X"	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly	Not Sure
( ) 8. With the "information explosion" multiplying exponentially the number of new books and articles in the medical sciences, it is time to reevaluate the "publish or perish" ethic and focus on quality instead of quantity in publications............(34(	___-1	___-2	___-3	___-4	___-5
( ) 9. The glut of information in the medical sciences presents serious problems unless we develop different systems of storage and retrieval.....(35(	___-1	___-2	___-3	___-4	___-5
( ) 10. Medical school libraries should keep all materials of potential scholarly interest even if they are hardly ever used................(36(	___-1	___-2	___-3	___-4	___-5
( ) 11. Medical school libraries should keep all materials of potential clinical relevance even if they are hardly ever used................(37(	___-1	___-2	___-3	___-4	___-5
( ) 12. A medical school library should be judged on its ability to provide users with easy access to the most relevant information rather than on the size of its collection..............(38(	___-1	___-2	___-3	___-4	___-5
( ) 13. One of the best ways to keep up with medical literature is to "browse" through a wide variety of journals...(39(	___-1	___-2	___-3	___-4	___-5

2a. Now I'd like to ask you a few questions about your use of information sources relating to your field. In the past twelve months, how many books in your field -- or related to your field in some way -- would you say you have read?

/ / / / books read in past twelve months
(40-42)

Not sure....(43(____-1

2b. And what are the two or three most significant books in your field or related to your field that you've read in the past twelve months?

____________________ (44-45)

____________________ (46-47)

____________________ (48-49)

2c. And how many books in your field -- or related to your field -- did you buy in the past twelve months?

/ / / / books bought in past twelve months
(50-52)

Not sure....(53(____-1

2d. And how many journals in your field do you read regularly?

/ / / / journals
(54-56)

Not sure....(57(____-1

2e. And which two or three journals do you feel are most valuable or important to you?

____________________ (58-59)

____________________ (60-61)

____________________ (62-63)

3a. Do you have access to online computerized databases for the medical sciences, through either your own terminal or personal computer or through a library? (READ IF NECESSARY:) By that I mean a computerized bibliographic database provided by an outside organization or supplier that you or a librarian can access through a terminal or personal computer. (IF YES:) Is that through your own terminal or PC, or through the library?

Have access through own terminal/PC....(64(____-1
Have access through library...............____-2 } (ASK Q.3b)
Have access through both (vol.)...........____-3

Don't have access.........................____-4 } (SKIP TO Q.4)
Not sure..................................____-5

3b. Have you used an online computerized database in the past twelve months, or not?

Have used..............(65(____-1 (ASK Q.3c)

Have not used..............____-2 } (SKIP TO Q.4)
Not sure...................____-3

3c. When you access information via online databases, do you generally sit at a terminal or PC and do the search yourself, or does a librarian or information specialist trained in search strategies do it for you?

Do it myself...(66(____-1 (ASK Q.3d)

Librarian/specialist does it for me..........................____-2
Someone else does it, but not a librarian/trained } (SKIP TO Q.3e)
information specialist (vol.)................................____-3

I do it sometimes/specialist does it sometimes (vol.).......____-4 (ASK Q.3d)

Not sure..____-5 (SKIP TO Q.3e)

3d. For how many years have you been doing online database searches yourself?

/ / / years
(67-68)

Less than 1 year...(69(____-1
Not sure...............____-2

3e. And what is your preference -- to do the search yourself at a terminal or PC, or to have a librarian or information specialist do the search for you?

Do it myself...(70(____-1
Have librarian/specialist do it for me.....................____-2
Have someone else do it, but not a librarian/trained
information specialist (vol.)..............................____-3
Depends (vol.)...____-4
Not sure...____-5

3f. Which database vendors have you used in the past twelve months?
DO NOT READ LIST -- MULTIPLE RECORD

1. AMA NET..............................(71(____-1
2. BRS/Colleague...............................____-2
3. DIALOG......................................____-3
4. GTE Telenet.................................____-4
5. MEAD..____-5
6. MEDIS.......................................____-6
7. MINET.......................................____-7
8. National Library of Medicine (NLM)......____-8
9. Other (SPECIFY:)

____

____

______________________________________..____-9

Not sure.....................................____-0

3g. And thinking of specific online databases for the medical sciences made available through the vendors, which two or three are most important to you? MULTIPLE RECORD BELOW

INTERVIEWER: PROBE FOR NAMES OF SPECIFIC DATABASES

AAMSI Communications Network	(72(	-1
ACS Journals Online		-2
American Hospital Association Medical Device Database		-3
Arthritis Information Clearinghouse Database		-4
Avline (Audiovisuals Online)		-5
Biological Abstracts		-6
Bioethics Line		-7
Cancerline		-8
Catline		-9
Chemical Abstracts		-0
Chemline	(73(	-1
Clinical Literature Information		-2
Clinprot		-3
Colleague (BRS Saunders)		-4
Comprehensive Core Medical Library		-5
Diack Newsletter		-6
Disease Information		-7
Drug Information		-8
Drug Information Fulltext		-9
Electronic Yellow Pages - Professionals Directory		-0
Embase - Excerpta Medica (EMED)	(74(	-1
ENSDF - Medlist		-2
Food and Drug Administration Bulletin Board		-3
Grateful Med		-4
Grips Training File		-5
Health Audiovisual Online Catalog - Ohio		-6
Health Benefit Cost Containment Newsletter		-7
Health Planning and Admin		-8
Histline		-9
International Pharmaceutical Abstracts		-0
IRCS Medical Science	(75(	-1
ISI/Biomed		-2
Life: NET		-3
Medical Abstracts Newsletter		-4
Medical Procedure Coding and Nomenclature		-5
Medline/Medlars/Index Medicus online		-6
Minimedline		-7
Nursing and Allied Health Line		-8
Paperchase		-9
PDQ		-0
PDQ Directory	(76(	-1
Phycom Service		-2
Pre-Med		-3
Scisearch		-4
Serline		-5
Socio-Economic Bibliographic Information		-6
Superindex		-7
Toxline		-8
Other (SPECIFY):		-9
Not sure		-0

ASK EVERYONE

4. How comfortable would you be using (READ EACH ITEM) -- very comfortable, somewhat comfortable, not very comfortable, or not at all comfortable?

ROTATE -- START AT "X"		Very Comfortable	Somewhat Comfortable	Not Very Comfortable	Not at All Comfortable	Have Never Used (Vol.)	Not Sure
( ) 1. Printed books and journals............	(77(	____-1	____-2	____-3	____-4	____-5	____-6
( ) 2. Microfilm or microfiche..........	(78(	____-1	____-2	____-3	____-4	____-5	____-6
( ) 3. Online computerized databases...........	(79(	____-1	____-2	____-3	____-4	____-5	____-6

80Z

5a. How often would you say you refer to (READ EACH ITEM) to track down specific information -- do you do this very often, sometimes, rarely, or never? RECORD BELOW

5b. Would you rate (READ EACH ITEM) as indispensable, very useful, somewhat useful, or not at all useful in giving you access to specific information you need? RECORD BELOW

	Q.5a					Q.5b					
DO NOT ROTATE	Very Often	Sometimes	Rarely	Never	Not Sure	Indispensable	Very Useful	Somewhat Useful	Not Very Useful	Not at All Useful	Not Sure
1. Printed reference works or indexes like Index Medicus...2*	(10(___-1	___-2	___-3	___-4	___-5	(20(___-1	___-2	___-2	___-3	___-4	___-5
2. Books or monographs in a library........................	(11(___-1	___-2	___-3	___-4	___-5	(21(___-1	___-2	___-2	___-3	___-4	___-5
3. Books or monographs in your personal collection............	(12(___-1	___-2	___-3	___-4	___-5	(22(___-1	___-2	___-2	___-3	___-4	___-5
4. Journals in a library..........	(13(___-1	___-2	___-3	___-4	___-5	(23(___-1	___-2	___-2	___-3	___-4	___-5
5. Journals you receive personally	(14(___-1	___-2	___-3	___-4	___-5	(24(___-1	___-2	___-2	___-3	___-4	___-5
ASK ITEMS 6 AND 7 IF "HAVE ACCESS" IN Q.3a -- SKIP OTHERS TO ITEM 8											
6. Online computerized databases available in a library.........	(15(___-1	___-2	___-3	___-4	___-5	(25(___-1	___-2	___-2	___-3	___-4	___-5
7. Online computerized databases you access through your own terminal or personal computer..	(16(___-1	___-2	___-3	___-4	___-5	(26(___-1	___-2	___-2	___-3	___-4	___-5
8. Your own personal indexing system or database.............	(17(___-1	___-2	___-3	___-4	___-5	(27(___-1	___-2	___-2	___-3	___-4	___-5
9. Colleagues......................	(18(___-1	___-2	___-3	___-4	___-5	(28(___-1	___-2	___-2	___-3	___-4	___-5
10. Drug company detail men........	(19(___-1	___-2	___-3	___-4	___-5	(29(___-1	___-2	___-2	___-3	___-4	___-5

ASK Q.6a OF OFFICE-BASED PATIENT CARE PHYSICIANS ON FACE PAGE ONLY -- SKIP OTHERS TO Q.6b

6a. Do you currently have access to a medical library through a medical school, a hospital, or other organization with which you are affiliated?

Have access...........(30(___-1 (ASK Q.6b)

Don't have access.........___-2 } (SKIP TO Q.7a)
Not sure..................___-3 }

6b. I'd like to ask you about the medical libraries and information facilities to which you have access. Thinking about the materials in your field and related fields, how would you rate the (READ EACH ITEM) -- would you say excellent, very good, fair, or poor?

DO NOT ROTATE LIST	Excellent	Very Good	Fair	Poor	My Libraries Don't Collect Them (Vol.)	Not Sure
1. Collection of books on being up-to-date.	(31(____-1	____-2	____-3	____-4	____-5	____-6
2. Collection of books on being comprehensive..............................	(32(____-1	____-2	____-3	____-4	____-5	____-6
3. Collection of books on being easy-to-use	(33(____-1	____-2	____-3	____-4	____-5	____-6
4. Collection of journals on being up-to-date..................................	(34(____-1	____-2	____-3	____-4	____-5	____-6
5. Collection of journals on being comprehensive..............................	(35(____-1	____-2	____-3	____-4	____-5	____-6
6. Collection of journals on being easy-to-use....................................	(36(____-1	____-2	____-3	____-4	____-5	____-6
7. Collection of audiovisual materials on being up-to-date.......................	(37(____-1	____-2	____-3	____-4	____-5	____-6
8. Collection of audiovisual materials on being comprehensive....................	(38(____-1	____-2	____-3	____-4	____-5	____-6
9. Collection of audiovisual materials on being easy-to-use.....................	(39(____-1	____-2	____-3	____-4	____-5	____-6
10. Collection of computer-assisted instruction programs on being up-to-date.......	(40(____-1	____-2	____-3	____-4	____-5	____-6
11. Collection of computer-assisted instruction programs on being comprehensive....	(41(____-1	____-2	____-3	____-4	____-5	____-6
12. Collection of computer-assisted instruction programs on being easy-to-use......	(42(____-1	____-2	____-3	____-4	____-5	____-6
13. Availability at the library of information via online computerized database...	(43(____-1	____-2	____-3	____-4	____-5	____-6
14. Competence of the library staff.........	(44(____-1	____-2	____-3	____-4	____-5	____-6
15. Research skills of the library staff....	(45(____-1	____-2	____-3	____-4	____-5	____-6
16. Online database search skills of the library staff.........................	(46(____-1	____-2	____-3	____-4	____-5	____-6

6c. Now I'd like to describe for you some problems that may confront some medical libraries and the scientists, students, and physicians who use them. Please tell me how serious you personally think each problem is at the libraries you use -- very serious, somewhat serious, not very serious, or not at all serious? READ EACH ITEM

ROTATE -- START AT "X"	Very Serious	Somewhat Serious	Not Very Serious	Not at All Serious	Not Sure
( ) 1. Lack of space and overcrowded shelves due to the quantity of books, journals, and other printed materials............(47(	____-1	____-2	____-3	____-4	____-5
( ) 2. An emphasis on quantity rather than quality in building collections........(48(	____-1	____-2	____-3	____-4	____-5
( ) 3. The lack of an efficient system for retrieving the most appropriate publications on a topic................(49(	____-1	____-2	____-3	____-4	____-5
( ) 4. The increasing cost of maintaining a library with acceptable standards......(50(	____-1	____-2	____-3	____-4	____-5

6d. If it were demonstrated that by doing so medical libraries could manage their collections and information systems more efficiently and at less expense, how willing would you be to accept (READ EACH ITEM) -- very willing, somewhat willing, not very willing, or not at all willing?

ROTATE -- START AT "X"	Very Willing	Somewhat Willing	Not Very Willing	Not at All Willing	Already Have (Vol.)	Not Sure
( ) 1. Limiting the number of current books and periodicals available in the library............	(51(____-1	____-2	____-3	____-4	____-5	____-6
( ) 2. Limiting the number of archival books -- such as previous editions of textbooks -- available in the library.......	(52(____-1	____-2	____-3	____-4	____-5	____-6
( ) 3. Limiting the number of archival periodicals available in the library......................	(53(____-1	____-2	____-3	____-4	____-5	____-6
( ) 4. More books and periodicals available on microfilm or microfiche instead of in bound volumes....	(54(____-1	____-2	____-3	____-4	____-5	____-6
( ) 5. More sharing of library collections and facilities with other institutions..................	(55(____-1	____-2	____-3	____-4	____-5	____-6
( ) 6. The availability of some journals and scholarly publications only in computerized form	(56(____-1	____-2	____-3	____-4	____-5	____-6
( ) 7. A rule restricting access to the library's online databases to information professionals trained in efficient search strategies....................	(57(____-1	____-2	____-3	____-4	____-5	____-6
( ) 8. Panels of experts to determine what should or should not be included in online databases rather than including all publications..................	(58(____-1	____-2	____-3	____-4	____-5	____-6
( ) 9. An online retrieval system based on statistical analysis of which journals, authors, and papers are most often used.....	(59(____-1	____-2	____-3	____-4	____-5	____-6

6e. Which kind of library do you make use of most frequently?
DO NOT READ LIST -- SINGLE RECORD

Medical school library.................(60(____-1
Hospital library..............................____-2
Other university library....................____-3
County medical society library.............____-4
Other (SPECIFY:)

____..____-5
Not sure......................................____-6

ASK EVERYONE

7a. Now I'd like to ask you about online computerized databases in more detail. Which format do you think is best for receiving online information -- bibliographic citations, abstracts, or the full text of articles relevant to your request for information? SINGLE RECORD BELOW

7b. And which format do you typically use most often (bibliographic citations, abstracts, or the full text of articles)? SINGLE RECORD BELOW

	Q.7a Best	Q.7b Use Most Often
Bibliographic citations.....	(61(____-1	(62(____-1
Abstracts of articles...........	____-2	____-2
Full text of articles...........	____-3	____-3
Other (SPECIFY):		
______________________________....	____-4	____-4
Does not use...................	XXXXXX	____-5
Depends (vol.).................	____-6	____-6
Doesn't matter (vol.)...........	____-7	____-7
Not sure.......................	____-8	____-8

8a. As you may know, the efficient use of online databases involves strategies to get at relevant information. Different databases allow the use of different kinds of strategies.

In one type of database, searches are conducted using index terms or key words to identify relevant subject material.

In another type of database -- such as SciSearch -- searches are conducted using as a starting point a citation of a known article, with author's name, year, volume, and page number.

Which approach -- index term or citation -- do you feel is better for targeting the most relevant and important information in response to your query?

Index term or key word.(63(____-1
Citation..................____-2
Depends (vol.)............____-3
Not sure..................____-4

8b. And which approach -- index term or citation -- do you think is better at providing all of the information that pertains to your query -- that is, which provides the most exhaustive search?

Index term...........(64(____-1
Citation.................____-2
Depends (vol.)...........____-3
Not sure.................____-4

9a. Databases which use index terms or key words may allow two different kinds of searches. In a controlled vocabulary search, one is looking for specific subject terms assigned by an indexer to each document in a database. Even if the search term does not appear in the text of an article, the article may still be retrieved because it has been assigned that particular search term or key word. In a free text search, retrieval is based on the search term appearing in the article itself. If the search term does not appear in the article, the article is not retrieved.

Which kind of search -- controlled vocabulary or free text -- do you feel is better for targeting the most relevant and important information in response to your query?

Controlled vocabulary....(65(____-1
Free text...................____-2
Depends (vol.)..............____-3
Not sure....................____-4

9b. And which kind of search -- controlled vocabulary or free text -- do you think is better at providing all of the information that pertains to your query -- that is, which provides the most exhaustive search?

Controlled vocabulary....(66(____-1
Free text...................____-2
Depends (vol.)..............____-3
Not sure....................____-4

10a. Suppose online computerized databases for the medical sciences could be organized in several different ways. One way of doing it would be to input all articles in all journals in the database, and be able to search all of them for requested information. A second way would be to selectively input material into the database on the basis of importance, quality, and relevance, but search the entire database for requested information. Still a third way would include all articles in all journals in the database, but develop better retrieval strategies to provide more selective output on the basis of importance, quality, and relevance.

As far as you're concerned, which of these three different ways of organizing a database would be most useful -- the first, the second, or the third? RECORD BELOW

10b. Which would be most likely to foster creativity and spur scientific investigation? RECORD BELOW

10c. And which would be most cost-efficient in terms of time and money? RECORD BELOW

	Q.10a Useful	Q.10b Foster Creativity	Q.10c Cost-Efficient
1st Way: Input all/output all.......	(67(____-1	(68(____-1	(69(____-1
2nd Way: Selective input/output all.....	____-2	____-2	____-2
3rd Way: Input all/selective output.....	____-3	____-3	____-3

11a. If databases were organized for selective input or output, it has been suggested that decisions on the importance, quality, and relevance of material to be included be made by a panel of experts in each medical field or specialty. Who would you want to see choose such a panel of experts -- the American Medical Association, the National Institutes of Health, the National Library of Medicine, private foundations active in funding medical research, the leadership of medical specialty societies, the membership of those societies, or the leadership of nonmedical scientific societies, or the membership of those societies? MULTIPLE RECORD IF NECESSARY

AMA................................(70(____-1
NIH....................................____-2
National Library of Medicine.............____-3
Foundations..............................____-3
Medical specialty societies leadership...____-4
Medical specialty societies membership...____-5
Scientific societies leadership..........____-6
Scientific societies membership..........____-7
Other (SPECIFY):

____________________________________....____-8
None (vol.)..............................____-9
Not sure.................................____-0

11b. It has also been suggested that decisions as to which articles are included in a selective input or output scheme be based on objective, statistical measures. If that were to be done, would you prefer to see selection based on frequency of use of the article, on the number of citations it has generated in other articles, or on some other criterion? MULTIPLE RECORD IF NECESSARY

Frequency of use........(71(____-1
Number of citations.........____-2
Other (SPECIFY):

__________________________..____-3
Not sure....................____-4

ASK Q.12a, Q.12b, AND Q.12c IN SEQUENCE FOR EACH ITEM

12a. Now I'd like to ask you about some of the specific criteria that might be used to rank articles as reliable sources of information. How important to you is/are (READ EACH ITEM) -- very important, somewhat important, not very important, or not at all important? RECORD BELOW

12b. Would you favor or oppose the use of this as a criterion for deciding which articles are input into an online database? RECORD BELOW

12c. Would you favor or oppose the use of this as a selection criterion for a retrieval strategy in an online database? RECORD BELOW

	Q.12a					Q.12b Input Criterion			Q.12c Retrieval Criterion		
ROTATE -- START AT "X"	Very Important	Somewhat Important	Not Very Important	Not at All Important	Not Sure	Favor	Oppose	Not Sure	Favor	Oppose	Not Sure
( ) 1. The prior research achievements of the author.......	(72(___ -1	___ -2	___ -3	___ -4	___ -5	(10(___ -1	___ -2	___ -3	(18(___ -1	___ -2	___ -3
( ) 2. The academic credentials of the author.............	(73(___ -1	___ -2	___ -3	___ -4	___ -5	(11(___ -1	___ -2	___ -3	(19(___ -1	___ -2	___ -3
( ) 3. The fact that the author has many prior publications.....................	(74(___ -1	___ -2	___ -3	___ -4	___ -5	(12(___ -1	___ -2	___ -3	(20(___ -1	___ -2	___ -3
( ) 4. The uniqueness of the article or the findings presented.................	(75(___ -1	___ -2	___ -3	___ -4	___ -5	(13(___ -1	___ -2	___ -3	(21(___ -1	___ -2	___ -3
( ) 5. The relevance of the article to a scientific inquiry or research problem...................	(76(___ -1	___ -2	___ -3	___ -4	___ -5	(14(___ -1	___ -2	___ -3	(22(___ -1	___ -2	___ -3
( ) 6. The number of citations the article has generated in other articles.........	(77(___ -1	___ -2	___ -3	___ -4	___ -5	(15(___ -1	___ -2	___ -3	(23(___ -1	___ -2	___ -3
( ) 7. The quality of the journal the article appeared in...	(78(___ -1	___ -2	___ -3	___ -4	___ -5	(16(___ -1	___ -2	___ -3	(24(___ -1	___ -2	___ -3
( ) 8. The relevance of the article to clinical decisionmaking............	(79(___ -1	___ -2	___ -3	___ -4	___ -5	(17(___ -1	___ -2	___ -3	(25(___ -1	___ -2	___ -3

80Z

13a. We've been talking about online computerized databases. Soon we may be seeing something a little different: distributed databases for the medical sciences and medical practice, issued in the form of optical disks or CDs, that could be accessed by a personal computer equipped with a special drive to read optical media. Updated disks would be issued regularly.

The distributed database would contain the most frequently cited medical literature only, but would be easier to search than most online databases for the medical sciences today.

If it were available, how likely do you think you would be to use a distributed database such as the kind I've just described -- very likely, somewhat likely, not very likely, or not at all likely?

Very likely............(26(____-1 } (ASK Q.13b)
Somewhat likely............____-2

Not very likely............____-3
Not at all likely..........____-4 } (SKIP TO Q.14a)
Not sure...................____-5

13b. How willing would you be to access a distributed database yourself, without having a librarian or trained information specialist doing it for you -- very willing, somewhat willing, not very willing, or not at all willing?

Very willing............(27(____-1
Somewhat willing............____-2
Not very willing............____-3
Not at all willing..........____-4
Not sure....................____-5

14a. Whether or not you use online computerized databases, do you own a personal computer or have access to one? (IF YES, ASK:) Do you own it or do you have access to it?

Own.................................(28(____-1
Have access.............................____-2
Own one and have access to another (vol.)..____-3 } (ASK Q.14b)
Rent it (vol.)..........................____-4
Belongs to my school/hospital (vol.)....____-5

Neither own nor have access.............____-6 } (SKIP TO Q.14e)
Not sure................................____-7

14b. (Is the personal computer/are any of the personal computers) equipped with a modem or black box for telecommunication, or not?

Equipped with modem or black box.......(29(____-1
Not equipped............................____-2
Not sure................................____-3

14c. Is the personal computer at home, or where you work or study?

Home....................(30(____-1
Work/study..................____-2
Both (vol.).................____-3
Not sure....................____-4

14d. Have you set up your own bibliographic database on the PC, or not?

Have set up bibiographic database......(31(____-1
Have not set up.............................____-2 } (SKIP TO Q.15a)
Not sure....................................____-3

ASK Q.14e IF NEITHER OWN NOR HAVE ACCESS, OR NOT SURE, IN Q.14a --
SKIP OTHERS TO INSTRUCTION ABOVE Q.15a.

14e. Do you own, or have access to, a dumb terminal? (IF YES, ASK:) Do you own it or have access to it?

Own.....................................(32(____-1
Have access.................................____-2
Own one and have access to another (vol.)...____-3
Rent it (vol.)..............................____-4
Belongs to my school/hospital (vol.)........____-5
Neither own nor have access.................____-6
Not sure....................................____-7

ASK EVERYONE

15a. Have you ever completed a program of computer-assisted instruction, or CAI, or haven't you?

Have completed..........(33(____-1 (ASK Q.15b)

Have not...................____-2 } (SKIP TO INSTRUCTION ABOVE Q.F1a)
Not sure...................____-3

15b. Was this online and remote, or was the program disk-based?

Online/remote...........(34(____-1
Disk-based..................____-2
Have done both (vol.).......____-3
Not sure....................____-4

15c. Was this assigned work for a course, or was this something you elected to do on your own?

Assigned................(35(____-1
Elected.....................____-2
Have done both (vol.).......____-3
Not sure....................____-4

15d. Was this in the basic sciences, or clinical instruction?

Basic...................(36(____-1
Clinical....................____-2
Both (vol.).................____-3
Not sure....................____-4

ASK Q.F1a IF TEACHING/RESEARCH SCIENTIST. SKIP OTHERS TO INSTRUCTION ABOVE Q.F2a

F1a. For how many years have you been affiliated with your current institution?

/ / / years
(37-38)

Not sure....(39(____-1
Refused.........____-2

F1b. And for how many years have you been active in teaching or research?

/ / / years
(40-41)

Not sure....(42(____-1
Refused.........____-2

F1c. Are you an M.D. or a Ph.D.?

M.D...............(43(____-1 (ASK Q.F1d)

Ph.D..................____-2 (SKIP TO Q.F4)

Both (vol.)...........____-3 (ASK Q.F1d)

Not sure..............____-4 (SKIP TO Q.F4)

F1d. What is your specialty? (IF NAME MORE THAN ONE:) Well, which one do you consider your primary specialty? SINGLE RECORD BELOW

Q.F1d
Primary
Specialty

Anesthesiology........................(44(____-1
Cardiovascular diseases..................____-2
Dermatology..............................____-3
Emergency medicine.......................____-4
Family practice..........................____-5
General practice.........................____-6
Internal medicine........................____-7
Neurology................................____-8
Obstetrics/gynecology....................____-9
Ophthalmology............................____-0
Otolaryngology........................(45(____-1
Pathology, anatomical/clinical...........____-2
Pediatrics...............................____-3
Psychiatry...............................____-4
Radiology................................____-5
Radiology, diagnostic....................____-6
Surgery, general.........................____-7
Surgery, orthopaedic.....................____-8
Surgery, urological......................____-9
Other (SPECIFY:)

________________________________....____-0
None (vol.)...........................(46(____-1
Refused..................................____-2

ASK Q.F2a IF RESIDENT -- SKIP OTHERS TO INSTRUCTION ABOVE Q.F3a

F2a. Which postgraduate year are you in? (READ IF NECESSARY:) Which year of residency?

First year..............(47(____-1
Second year.................____-2
Third year..................____-3
Other (SPECIFY):

________________________....____-4
Not sure....................____-5

F2b. And what is your specialty? (IF NAME MORE THAN ONE:) Well, which one do you consider your primary specialty?

Q.F2b
Primary
Specialty

Anesthesiology........................(48(____-1
Cardiovascular diseases...................____-2
Dermatology...............................____-3
Emergency medicine........................____-4
Family practice...........................____-5
General practice..........................____-6
Internal medicine.........................____-7
Neurology.................................____-8
Obstetrics/gynecology.....................____-9
Ophthalmology.............................____-0
Otolaryngology........................(49(____-1
Pathology, anatomical/clinical............____-2
Pediatrics................................____-3
Psychiatry................................____-4
Radiology.................................____-5
Radiology, diagnostic.....................____-6
Surgery, general..........................____-7
Surgery, orthopaedic......................____-8
Surgery, urological.......................____-9
Other (SPECIFY:)

________________________________......____-0
None (vol.)...........................(50(____-1
Refused...................................____-2

ASK Q.F3a IF OFFICE-BASED PHYSICIAN -- SKIP OTHERS TO Q.F4

F3a. For how many years have you practiced medicine?

/ / / years
(51-52)

Not sure....(53(____-1
Refused.........____-2

F3b. Are you Board certified, or not?

Board certified	(54(____-1
Not Board certified	____-2
Not sure	____-3
Refused	____-4

F3c. And what is your specialty? (IF NAME MORE THAN ONE:) Well, which one do you consider your primary specialty?

	Q.F3c Primary Specialty
Anesthesiology	(55(____-1
Cardiovascular diseases	____-2
Dermatology	____-3
Emergency medicine	____-4
Family practice	____-5
General practice	____-6
Internal medicine	____-7
Neurology	____-8
Obstetrics/gynecology	____-9
Ophthalmology	____-0
Otolaryngology	(56(____-1
Pathology, anatomical/clinical	____-2
Pediatrics	____-3
Psychiatry	____-4
Radiology	____-5
Radiology, diagnostic	____-6
Surgery, general	____-7
Surgery, orthopaedic	____-8
Surgery, urological	____-9
Other (SPECIFY:)	
____________________	____-0
None (vol.)	(57(____-1
Refused	____-2

ASK EVERYONE

F4. How old are you?

/ / / years
(58-59)

Not sure	(60(____-1
Refused	____-2

61-80Z

That completes the interview. Thank you very much for your participation!

TIME ENDED:__________A.M./P.M.